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A statistical equation for predicting success at specific colleges was developed. High-school grade average and the American College Test Composite were two measures used in ratio to develop the general equation. The college profile scores developed by Astin and Holland were used to estimate mean equations for the institutions. The complete equation is applied to 1,000 four-year colleges, with examples of how an individual student's grades can be predicted at a specific institution. (NS)

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FORECASTING ACADEMIC SUCCESS IN SPECIFIC COLLEGES

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Part I. The Problem

One of the most obvious trends in American education is the increasing proportion of youngsters seeking post high school education or training. The ratio of number of college students to the total number in the 18-21 age group has risen steadily from 14 out of 100 in 1939 to 46 out of 100 in 1965. It is expected to reach 55 out of 100 by 1974. Whereas there were about 1.3 million college students in 1939, there were 5.5 million in 1965 and about 8.7 million are expected in 1974 (Office of Education, 1965a, 1965b; Bureau of Census, 1964).

This trend is accompanied by an immense diversity in the needs and talents of college-bound youth. No longer is college a place exclusively for the leisure class, or for training ministers and doctors, or for the intellectual elite. It has become a major means of preparing students for a vast array of occupations. The demands of the vocational world for more and more people with specialized skills and understandings, together with the willingness of higher education to adapt its curricula to these demands, account in large part for the dramatic increase in the numbers of high school graduates seeking admission to college. It has also led to enormous differences among colleges in purposes, philosophies, facilities, students, and the many other ingredients of higher education.

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A number of research studies have documented the diversity in higher education. For example, McConnell and Heist (1962) found that, in a representative sample of 200 colleges, the average score on the American Council on Education Psychological Examination ranged from 37.5 (below the first percentile for college freshmen nationally) to 142.2 (above the 90th percentile for all college freshmen). Similarly, in an 11 college study, Goldsen and her colleagues (1960) found that 80% of the students at Fisk felt that vocational training should be emphasized, while only 30% of Harvard freshmen endorsed this as a legitimate emphasis in college. And in other studies, wide differences have been found among colleges in the degree to which their freshmen aspired to advanced degrees, planned to work part-time, were influenced in their choice of college by economic factors, or had attained success in out-of-class activities in high school (Hoyt, 1968a, 1968b).

These institutional differences, while giving a chaotic picture of higher education in America, are generally viewed as desirable. They illustrate some of the major individual differences among high school seniors. Because a large proportion of this diverse group will enroll in "college," different kinds of colleges will be needed.

Whether by design or by chance, American society has produced an extremely wide range of opportunities for post-high school training. However, the problem of selecting a college which is well suited to the capacities and

needs of a given student has not been resolved. The secondary school counselor, because of his interest, experience, and training, is expected to play a key role in this decision by providing useful information to the student and by helping the student explore his capacities, interests, and values.

Pre-College Guidance -- A Model

A general model for providing assistance to individuals in making and implementing effective plans has been available since the time of Parsons and before (Zytowski, 1967). The model requires understanding the person, understanding the nature of the choices available to him, and combining these understandings to maximize the probability that the individual's goals can be realized.

Applied to the pre-college guidance setting, the model requires, first, that the student arrive at a realistic assessment of his characteristics as they relate to his needs for higher education. Whether or not a given characteristic is relevant to planning is often a matter for individual decision making. For example, two students may each correctly characterize themselves as highly social in orientation. One may believe that the satisfaction of his social drives is relatively unimportant at this time, and thus campus social opportunities are irrelevant to his choice of college; the other may believe that the opportunity to express his social nature and develop his social skills is highly important and will seek a college which facilitates the achievement

of these goals.

There is no definitive list of the personal characteristics which should be assessed. But it does seem desirable for all college-bound students to have a clear concept of their goals in attending college and an accurate understanding of their potential for reaching these goals.

The model requires that college opportunities be understood in a similar manner; that is, those aspects of the college which are relevant to the individual's goals and capacities should be known prior to the time that an application is made. For individual students, this may require knowledge of the extra-curricular opportunities, of the athletic program, of the library, of the national reputation of the faculty in a given department, or of many other environmental features which will facilitate or inhibit the student's ability to reach his goals. Almost all colleges set minimum standards of academic achievement which the student must reach if he is to re-enroll and eventually graduate. Therefore, for most students, an understanding of the academic characteristics of the college including the level of competition, the severity of grading practices, and the nature of academic probation and dismissal policies, is required.

Helping the student understand himself, the nature of the choices available to him, and the means by which these understandings can be integrated into a plan which promises to have satisfying outcomes are important responsibilities of the counselor.

Current Status

The effectiveness of the counselor in assisting his pre-college client depends upon the student's readiness to accept help, the counselor's professional skill, the counselor-client relationship, and the adequacy of the information which can be brought to bear on the situation. Our present understanding is inadequate to guarantee that optimal conditions will exist in any of these areas.

In the past few years, there has been considerable improvement in the quality and scope of information about colleges available to counselors. The publications of Astin (1965), Cass and Birnbaum (1965), Gleazer (1967), and Cartter (1964) are especially helpful because of their comprehensiveness and objectivity. But these publications have been unable to supply adequate information on one critical aspect of the college, namely its academic demands. It is this kind of information which the present monograph seeks to provide.

The Educational Need

Counselors and others concerned with "the great sorting" process of college admissions have long been aware of the need for information about the level of academic competition and the grading standards characteristic of a given college. Some progress has been made in obtaining such information for certain colleges. For example, the College Entrance Examination Board (CEEB, 1967) published academic information about 520 colleges that

volunteered to release it; academic aptitude distributions were usually included, and some colleges also provided their distribution of freshman grades. More complete academic information is available for the colleges in Utah (Jex, 1966), Minnesota (Johnson et. al., 1961), and Georgia (Hills et. al., 1965). Special manuals have been prepared for these states which provide specific equations for predicting academic success at each college. These predictions are based on the results of a standardized aptitude test and a summary of the high school record; since a separate equation is prepared for each college, differences in grading standards are taken in account as well as differences in the academic potentials of their students. Unfortunately, these guides include only a small portion of the colleges and universities in America.

Yet students, counselors, and parents need to know a student's likelihood for obtaining satisfactory grades at any college a student may wish to consider. If a student's academic achievement could be forecast for <u>all</u> colleges, the promotion of student potential and well being would be considerable. Such information would nurture not only our human capital but the resources of higher education, for student attrition within the college years is usually destructive for both students and colleges.

The alternatives to this point of view appear less tenable. If academic information is not available, students, counselors, and parents use unreliable substitutes: rumor, anecdotes based on one or two students, crude or incomplete information from the growing galaxy of commercial

guides, etc.

To secure more useful and comprehensive information, there are only two major alternatives: (1) persuade all colleges to provide the necessary information, or (2) use the current public information about colleges and universities to supplement college guides and other less reliable and incomplete reports about colleges.

This report considers how public information about colleges can be used to make predictions of academic accomplishment which will benefit students, counselors, parents, and colleges.

The Research Problem

The statistical ideal would be to develop an accurate equation for predicting grades at every college. A considerable literature exists on academic prediction studies (e.g., Lavin, 1965). We know that the most useful predictions are made when both a scholastic aptitude test and the high school record are used. The literature also tells us that separate equations for boys and girls are desirable for the latter usually excel in both college grades and high school grades but not on scholastic aptitude tests. Furthermore, the academic achievement of girls can usually be predicted more accurately than can that of boys.

Previous research has not settled the question of whether unique regression weights need to be developed for every college. While, in practice, unique equations are usually developed for each college, there has been no careful study of how wide the differences are in the weights so

developed. An informal examination of several hundred such equations suggested that a fairly "standard" pattern of weights may exist. Empirically, research done on the Washington Pre-College Testing Program suggested that equations developed for the University of Washington could be usefully applied to other four-year colleges in that state (Lunneborg, 1966). From these considerations, it was hypothesized that one could find a single set of weights--one for the high school record and one for a scholastic aptitude score--that would "work" satisfactorily for almost any college.

In a preliminary study, this supposition was tested by developing a "general prediction equation" and comparing its predictive accuracy with that of unique equations developed at each of 23 individual colleges (Hoyt, 1963). The general equation correlated with grades nearly as well as did the unique equations. It appeared practical then, to use the same regression weights for every college.

The preliminary study also revealed the major weakness in generalized prediction. Despite generally satisfactory correlations, the accuracy of prediction at individual institutions was often unsatisfactory. In some colleges, predictions were frequently too high, and in others they were frequently too low. Such systematic errors do not affect the correlation coefficient, but they do reduce the usefulness of generalized equations.

Systematic errors in prediction occur because colleges differ in their

grading practices and in the level of academic potential which characterizes their freshman class. Furthermore, there is little relationship between the level of grades and the level of academic ability as measured by a standardized test.[1] Clearly, the practical usefulness of generalized equations depends upon our ability to take these differences into account.

The Procedure[2]

Guided by previous research, we decided to use two measures to predict grades--one reflecting the high school record and one reflecting performance on a standardized test of academic potential. Because of their accessibility, measures routinely reported by The American College Testing Program were chosen. These included high school average (HSA) and the ACT Composite (ACT-C).

HSA is the average of four self-reported high school grades. At the time that the student writes the ACT examination, he is asked to report his most recent term grades in English, mathematics, social studies, and natural sciences. Grades earned in the senior year are excluded so that

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[1]In a study of 79 junior colleges, mean GPA and mean ACT Composite correlated only .05 (Hoyt, 1968a) while in 169 four-year colleges this correlation was .33 (Hoyt, 1968b).

[2]The research summarized here is reported in more detail in an article which will appear in the Personnel and Guidance Journal (Hoyt, 1968c).

typically these grades reflect high school performance in the junior year. Because not all students register for courses in all four areas during their junior year, it is sometimes necessary to include courses taken in the sophomore or freshman years. Previous research has established that these grades are generally reported accurately; further, they have been shown to be as predictive of college grades as the more familiar high school rank (HSR) (American College Testing Program, 1965).

The ACT Composite is the average of the standard scores for the four tests of educational development included in the ACT Battery. These tests assess the student's ability to perform academic tasks typically required by college courses in English, mathematics, social studies, and natural sciences. The tests have been shown to be as predictive of college grades as other tests of academic potential (Munday, 1965; Buros, 1965).

An empirical approach was taken to the problem of the relative weight to give to HSA and ACT-C. Optimal weights were computed for each sex for a sample of 50 four-year colleges which had participated in one of the American College Testing Program's predictive services. Although the ratio of the ACT-C weight to the HSA weight ranged from 1:.7 to 1:3.2, most of the ratios were near the median of 1:1.2. This ratio held for both sexes and was used to develop the general prediction equations.

This same sample of 50 colleges was used to estimate certain other statistical constants needed to develop these questions. Thus, it was

discovered that the typical girl had an HSA which was .33 higher than the typical boy; similarly, the ACT-C for girls averaged .33 below that for boys, and girls typically had a college GPA which was .29 above that of the typical male. Median standard deviations on each of these measures were also computed for each sex. All of these data were used in a standard manner to develop prediction equations.

To deal with the problem of systematic errors in prediction, it is necessary to be able to estimate three constants for any college--the mean ACT-C, the mean HSA, and the mean college GPA. And, since not all colleges provide these data, these estimates must be made from published non-confidential sources of information. For this purpose, the "college profile" scores provided by Astin (1965) were used. Before describing how these scores were employed, it may be helpful to review their nature briefly.

A few years ago, Astin and Holland (1961) proposed a new and simple method for measuring the college environment. From Holland's theory of vocational choice (Holland, 1959), they reasoned that (a) the most important features of a campus environment were those created by its students, (b) the type of atmosphere created on a given campus would depend upon the proportions with which each of several types of students were represented, and (c) that the presence of important types of students could be inferred from knowledge of the number of students graduating each year in each of six

areas of study (Realistic, Intellectual, Social, Conventional, Enterprising, and Artistic). Since students and adults in these fields have been shown to have different patterns of abilities, interests, competencies, and personality traits (Holland, 1966), it is reasonable to suppose that a college dominated by one of them would provide an atmosphere distinct from that of a college dominated by another. The Astin-Holland Environmental Assessment Technique (EAT) simply described the percentage of graduates in each of these six fields, using data routinely supplied by the United States Office of Education. By simple statistical manipulation, these percentages were converted to standard scores with a mean of 50 and standard deviation of 10. Two other items were included in the EAT: the size of the student body (taken from an Office of Education publication), and the estimated "selectivity" of the institution. The latter was compiled on the basis of the relative popularity of colleges with students scoring high on the National Merit Scholarship tests; the more popular the college relative to its total size, the higher the selectivity score.

In other studies, Astin focused his research attention on the question, "What are the major dimensions of student characteristics which differentiate among institutions of higher education?" (Astin, 1964a). After collecting some 52 items of information descriptive of student characteristics at 248 diverse colleges, Astin was able to show that these described six basic dimensions upon which entering classes differed. These dimensions were labeled Intellectualism, Estheticism, Status, Pragmatism, Masculinity,

and Leadership.

In another study Astin (1962) showed that four factors--affluence, size, private control, and "masculinity"--accounted for most of the known differences among higher educational institutions. Using data from the United States Office of Education, the American Council on Education, the National Research Council, and the National Merit Scholarship Corporation, Astin correlated measures of these four factors, as well as EAT scores, with measures of the six dimensions of student characteristics discovered earlier (Astin, 1964b). In this important investigation, it was found that five of the six dimensions could be accurately predicted from the objective descriptions of the colleges. College characteristics correlated only .58 with the "Leadership" dimension, but for the other five student characteristics, correlations ranged from .73 to .90.

Since, with the exception of "Leadership," basic student characteristics could be inferred from measures of college characteristics, and since the latter were generally available in published sources, Astin was able to supply "college profiles" for over 1,000 accredited four-year colleges (Astin, 1965). These profiles included both the EAT and the student characteristics estimated from EAT scores and other objective indices of college characteristics.

Could Astin's "profile scores" be used to estimate the three means needed to "adjust" the generalized predictions and to take into account

differences in grading standards and the academic potential of entering students? This question was explored by using a sample of 169 four-year colleges which had participated in one of ACT's predictive research services in 1965 or 1966. The mean ACT-C, HSA, and first year college GPA were recorded for each college. Astin's 13 scores were then correlated with each of these measures. After eliminating any of Astin's scores which did not contribute significantly to the accuracy of prediction, multiple correlations of .78, .58, and .59 were obtained with mean ACT-C, mean HSA, and mean college GPA, respectively. To check the stability of the equations used in predicting these three means, a new sample of 207 colleges was drawn. Cross-validation coefficients of .78, .63, and .54 were obtained, suggesting that the original findings were reasonably stable.

While these correlations were encouraging, only the .78 associated with the ACT Composite could be considered high enough to justify estimates for individual colleges. Many sizeable errors would be made if mean HSA or mean college GPA on a given campus were estimated from Astin's scores.

It is possible that these errors might have a compensating effect upon each other. That is, if the estimated HSA at a given college was too low, the estimated college GPA might also be too low so that a prediction equation which relied on both estimates might yield satisfactory results despite these errors. The next phase of the study explored this question.

A new sample of 18 colleges was used, representing all regions of the

country and most of the types of four-year colleges. How accurately could the college grades of the student sample for one year be predicted from (a) the institution's own prediction equations developed from results for the previous year's freshman class, and (b) the generalized equation developed in this investigation?

As we noted earlier, accuracy is reflected both in the predictive correlation and in the magnitude of the difference between predicted and obtained. For the 18 colleges, the medians of the two sets of correlations (specific equation and general equation) were identical; the largest difference between the two was only .04. Further, the generalized equations (adjusted by the mean ACT-C, HSA, and college GPA estimated from Astin's scores) made no more systematic errors than did the unique institutional equations developed from the records of the previous year's freshmen.

Since the 18 colleges were chosen to reflect the diverse elements in higher education, and since the generalized method was eminently successful with them, there is reason to believe that the method could be effectively applied to any college for which Astin has published a profile. The necessary computational work has been done and the results appear in Part II of this report. The Appendix provides a detailed description of how these computations were made.

Part II. Application

The research reported in Part I established a method for predicting grades at any four-year college from a knowledge of the student's ACT Composite score and his recent high school grades in four areas. This section applies these results to nearly 1,000 four-year colleges.

Before examining the specific procedures, it may be helpful to look at two questions. (1) Suppose a given college has released predictive information to high school counselors which yields predictions that are inconsistent with those made through data supplied in this publication. Which should be used? If the college has released current prediction equations, these should be used rather than the results reported here. Although no evidence has been found that local equations are superior, it is unlikely that they would be inferior. (2) Can the findings be used for students who do not write the ACT Examination? In particular, since many colleges require the results of the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board, could SAT scores be used in place of ACT scores? Several studies have shown that the ACT-Composite and the total SAT score (V + M) are highly correlated. As a result, tables of "equivalency" can be constructed. While there are many technical and practical reasons why the SAT and ACT tests could never be considered as identical measures, it is usually possible to infer a student's standing on one from his standing on the other. Chase and Barritt (1966) have recently published a table of concordance between ACT and SAT; an adaptation of this

table is shown in Figure 1.[3] By using this table, SAT scores could be "converted" to ACT-C scores which could then be used for prediction purposes.

Figure 1

A "Table of Concordance" Between ACT and SAT, Adapted From Chase and Barritt (1966)

ACT Composite	SAT Total (V + M)	
	Men	Women
8	403-443	400-421
9	444-485	422-462
10	486-526	563-504
11	527-567	505-545
12	568-608	546-587
13	609-650	588-629
14	651-691	630-670
15	692-732	671-712
16	733-773	713-753
17	774-815	754-795
18	816-856	796-836
19	857-897	837-878
20	898-938	879-920
21	939-980	921-961
22	981-1021	962-1003
23	1022-1062	1004-1044
24	1063-1103	1045-1086
25	1104-1144	1087-1128
26	1145-1185	1129-1169
27	1186-1227	1170-1211
28	1228-1268	1212-1252
29	1269-1309	1253-1294
30	1310-1351	1295-1336
31	1352-1392	1337-1377
32	1393-1433	1378-1419
33	1434-1474*	1420-1460*
34	1475-1516*	1461-1502*
35	1517-1557*	1503-1544*
36	1558-1598*	1545-1585*

* Figures are extrapolations from the Chase-Barritt table.

[3]Thanks are due to Clinton I. Chase, L. Spencer Barritt, and the

A note of caution is in order. The converting process (SAT to ACT) represents an additional manipulation of data, and the effect of this on predictive accuracy is unknown. Therefore, if complete information about a college's academic characteristics has been published in the Manual of Freshman Class Profiles (CEEB, 1967), it should be used in preference to the data in this publication.

To predict the academic success of a given student at specific four-year colleges requires the following procedures:

1. Record the student's ACT Composite score (or the ACT Composite score converted from the SAT V + M score) and his HSA. The HSA should be computed on a four-point scale (A=4; B=3; C=2; D=1; F=0). From the student's transcript, determine his most recent term grade, prior to the senior year, in English, mathematics, social studies, and natural science. The chart below enumerates all possibilities:

High School Grades	HSA
AAAA	4.00
AAAB	3.75
AAAC; AABB	3.50
AAAD; AABC; ABBB	3.25
AAAF; AACC; AABD; ABBC; BBBB	3.00
AABF; AACD; ABBD; ABCC; BBBC	2.75

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[3](cont.) Journal of College Student Personnel, for their permission to reproduce the data shown in Figure 1.

High School Grades	HSA
AACF; AADD; ABBF; ABCD; ACCC; BBBD; BBCC	2.50
AADF; ABCF; ABDD; ACCD; BBBF; BBCD; BCCC	2.25
AAFF; ABDF; ACCF; ACDD; BBCF; BBDD; BCCD; CCCC	2.00
ABFF; ACDF; ADDD; BBDF; BCCF; BCDD; CCCD	1.75
ACFF; ADDF; BBFF; BDDD; BCDF; CCCF; CCDD	1.50
ADFF; BCFF; BDDF; CCDF; CDDD	1.25
AFFF; BDFF; CCFF; CDDF; DDDD	1.00
BFFF; CDFF; DDDF	0.75
CFFF; DDFF	0.50
DFFF	0.25
FFFF	0.00

2. Use Table A-1 (men) or Table A-2 (women) to develop a "general academic potential" index for the student. This is done by finding the column corresponding to the student's HSA, the row corresponding to his ACT Composite score, and the cell where this row and column intersect.

3. Convert this index into a predicted GPA by adding the college constant given in Table B. The obtained prediction is on a four-point scale where A=4, B=3, C=2, D=1, and F=0.

4. Use Table C to estimate the student's probability of earning a first-year GPA below C, between C and B, or B or higher.

Illustration: Mary Jones is considering two Iowa colleges: Iowa Wesleyan and Iowa State University. She has an ACT Composite standard score of 20. Her transcript shows that, prior to her senior year, her

most recent high school grades were B in English, C in mathematics, A in social studies, and C in natural science, giving her an HSA of 2.75 $(\frac{3 + 2 + 4 + 2}{4})$. Table A-2 shows that her "academic potential" index is 2.51. The regression constants for women at Iowa Wesleyan and at Iowa State University (Table B) are -.12 and -.49 respectively. Thus, her predicted GPA at Iowa Wesleyan is 2.39 (2.51-.12); at Iowa State University, her predicted GPA is 2.02 (2.51-.49). These figures can be rounded to 2.4 and 2.0; then Table C can be used. It shows that the probability of earning below a C average is estimated as 24/100 at Iowa Wesleyan and 50/100 at Iowa State University.

Table B also includes an estimate of the mean ACT Composite score at each college. This estimate is given as an interval, which reflects the predicted mean plus and minus one standard error of estimate. Thus, the chances are 2 out of 3 that the "true" mean for the institution lies within this range. For some colleges, the ACT Composite estimate may be more valuable than the predicted GPA. This will often be true of highly selective colleges that admit only a portion of the applicants capable of doing satisfactory academic work. Since these colleges must deny admission to many students with predicted GPAs of 2.0 or higher, the difference between the student's ACT Composite and the college's predicted ACT Composite mean may provide a more reliable indication of his academic acceptability than does his predicted GPA at that college.

Some Limitations

Before making practical applications of these data in pre-college guidance, counselors should be aware of the following limitations:

1. Only four-year accredited colleges for which Astin published profiles are included. Two-year colleges, unaccredited colleges, or recently accredited colleges have been omitted.

2. The possibility of change in entering classes at individual colleges should be recognized. Astin's evidence suggests that such change is rare. Nonetheless, counselors should be alert to changes in college policies which may affect the nature of the student body and therefore the current validity of previously developed regression equations.

3. Especially in complex institutions, a single prediction of academic success may be unsatisfactory since it ignores differences among curricula. Preliminary research shows that in complex colleges, freshmen in Education, Business Administration, or Engineering Sciences typically differ significantly from the freshman class as a whole. On the other hand, Liberal Arts freshmen usually resemble the entire freshman class in their academic characteristics. Modal differences between these curricular groups and the entire freshman class are shown in Figure 2. This figure shows that freshmen enrolling in the Education curriculum at a complex college or university typically average 1.3 standard score points on the ACT Composite below the average for the entire freshman class. These Education freshmen typically had slightly higher HSAs than did all freshmen

Figure 2

Typical Academic Differences Between All Freshmen and Freshmen Enrolling in Selected Curricular Groups in Complex Colleges and Universities

Curriculum Group	Mean ACT Composite	Mean HSA	Mean College GPA
Education	-1.3	+.05	+.05
Business Administration	-0.8	-.21	-.14
Engineering Science	+1.8	+.11	-.05
Liberal Arts	+0.7	-.03	-.02

and also earned slightly higher college GPAs. Students in Engineering Sciences typically were above the college's average on both the ACT Composite and HSA but were awarded grades which were slightly lower than those typically given at the college.

Further research must be done to establish the counseling implications of these findings. The evidence so far suggests that no correction should be made in academic predictions for students planning to enroll in Liberal Arts or Business Administration curricula; about .1 should be added to the GPA predictions for students planning to enroll in Education, and about .2 should be subtracted from the GPA predictions for students planning to enroll in an Engineering Science curriculum. It should be emphasized that new research may suggest revisions in these "correction" figures and may

identify other curricular groups for which corrections should be made.

4. While the evidence reported here suggests that generalized equations will probably predict as accurately as unique institutional equations, there is no dependable way of knowing the predictive efficacy of either type of equation at a given college. In general, the more an institution selects its students on the basis of their academic potentials, the lower the predictive correlation will be. For these colleges, the predicted mean ACT Composite will probably be more helpful to the counselor than the student's predicted GPA.

5. Because of statistical regression, the predicted ACT Composite means (Table B) probably contain systematic errors. In particular, predicted means in the range of 22-25 may be about one standard score too low, and those above 25 about two standard scores too low. Conversely, predicted means in the 16-19 range may be about one standard score too high, and those below 16 about two standard scores too high.

Counseling Uses

The tables in this publication are intended to provide the counselor and his pre-college client with some helpful information about the probable academic success of the latter, but they are not a substitute for more current, predictive information provided by individual colleges. It is important that both counselor and client put this information in proper perspective.

For many students, the information may be relatively irrelevant.

Effective counseling will usually establish what kinds of information the student needs. It is quite conceivable that the pivotal issues in the college choice process will revolve around questions unrelated to academic success. Cost, location, curricular offerings, special programs (independent study, remedial reading, junior-year abroad, etc.), prestige, student services, social climate, or a variety of other factors may be more germane to the student's choice of a satisfactory college. To routinely refer to the academic predictions made in this report, without regard to whether they represent information which the student desires or needs, would be poor counseling strategy.

Of course, counselors should be concerned that student choices reflect reality considerations. Students who make tentative college choices where they have low probabilities of succeeding, or low probabilities of being accepted, should be informed of these realities even if they fail to formulate questions which provoke this information. It is conceivable that the reasons for such choices are sufficiently compelling that the student will attempt to implement his plans despite the bleak prognosis, and counselors must be careful not to place negative value judgments on such decisions. But it also happens that students may overlook or be unaware of the differences in academic demands made by various colleges. Such students should not be denied this information simply because they failed, in their exploration of plans, to perceive its relevance to the decisions they face.

Similarly, academically able students who are considering colleges where the general level of academic competition is low should be encouraged to reflect upon the potential consequences of such a choice. For some, the possibility of boredom through lack of intellectual competition and stimulation may be seen as an important deterrent. Others may have psychological needs which require that they produce superior academic records, so that a sizeable difference between their academic potential and the college's academic demands would be perceived as a positive sign.

One further consideration should be added to the perspective provided by the preceding discussion. Counselors and their clients should be aware that academic success represents only one type of accomplishment. A number of studies have shown that distinguished performance outside of the classroom, whether in high school or in college, bears little relation to high school grades, college grades, or tests of academic potential (Holland & Richards, 1965; Richards, Holland & Lutz, 1967). Furthermore, the literature on the relationship of college grades to measures of adult success is consistent in showing that the two are either unrelated, or, at best, modestly correlated (Hoyt, 1966). In helping youngsters plan their future, counselors should be aware that by concentrating solely on academic prognoses they may unintentionally suggest to the student that academic success is a satisfactory indicator of other types of success. Regardless

of how gifted or handicapped a student may be academically, he should be encouraged to identify and develop his major strengths to the end that he makes a useful contribution to society through the realization of his unique potentials.

Table A-1

Grade Prediction For Men

High School Average (HSA)

ACT COMPOSITE STANDARD SCORE	4.00	3.75	3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1.25	1.00	0.75	0.50	0.25	0.00	
36	3.73	3.62	3.51	3.40	3.28	3.18	3.07	2.96	2.85	2.74	2.62	2.51	2.40	2.30	2.18	2.07	1.96	36
35	3.68	3.57	3.46	3.35	3.23	3.12	3.01	2.90	2.79	2.68	2.57	2.46	2.35	2.24	2.13	2.02	1.90	35
34	3.63	3.52	3.40	3.30	3.17	3.07	2.96	2.85	2.74	2.63	2.52	2.40	2.29	2.18	2.07	1.96	1.85	34
33	3.57	3.46	3.35	3.24	3.12	3.02	2.91	2.79	2.68	2.57	2.46	2.35	2.24	2.13	2.02	1.91	1.80	33
32	3.52	3.41	3.29	3.18	3.06	2.96	2.85	2.74	2.63	2.52	2.41	2.30	2.18	2.07	1.96	1.85	1.74	32
31	3.46	3.35	3.24	3.13	3.01	2.91	2.80	2.69	2.58	2.46	2.35	2.24	2.13	2.02	1.91	1.80	1.69	31
30	3.41	3.30	3.19	3.08	2.96	2.85	2.74	2.63	2.52	2.41	2.30	2.19	2.08	1.97	1.85	1.74	1.63	30
29	3.35	3.24	3.13	3.02	2.90	2.80	2.69	2.58	2.47	2.35	2.24	2.13	2.02	1.91	1.80	1.69	1.58	29
28	3.30	3.19	3.08	2.97	2.85	2.74	2.63	2.52	2.41	2.30	2.19	2.08	1.97	1.86	1.75	1.63	1.52	28
27	3.25	2.13	3.02	2.91	2.79	2.69	2.58	2.47	2.36	2.25	2.13	2.02	1.91	1.80	1.69	1.58	1.47	27
26	3.19	3.08	2.97	2.86	2.74	2.64	2.52	2.41	2.30	2.19	2.08	1.97	1.86	1.75	1.64	1.53	1.41	26
25	3.14	3.03	2.91	2.80	2.68	2.58	2.47	2.36	2.25	2.14	2.03	1.92	1.80	1.69	1.58	1.47	1.36	25
24	3.08	2.97	2.86	2.75	2.63	2.53	2.42	2.30	2.19	2.08	1.97	1.86	1.75	1.64	1.53	1.42	1.31	24
23	3.03	2.92	2.81	2.69	2.57	2.47	2.36	2.25	2.14	2.03	1.92	1.81	1.70	1.58	1.47	1.36	1.25	23
22	2.97	2.86	2.75	2.64	2.52	2.42	2.31	2.20	2.08	1.97	1.86	1.75	1.64	1.53	1.42	1.31	1.20	22
21	2.92	2.81	2.70	2.59	2.47	2.36	2.25	2.14	2.03	1.92	1.81	1.70	1.59	1.48	1.36	1.25	1.14	21
20	2.86	2.75	2.64	2.53	2.41	2.31	2.20	2.09	1.98	1.87	1.75	1.64	1.53	1.42	1.31	1.20	1.09	20
19	2.81	2.70	2.59	2.48	2.36	2.25	2.14	2.03	1.92	1.81	1.70	1.59	1.48	1.37	1.26	1.14	1.03	19
18	2.76	2.64	2.53	2.42	2.30	2.20	2.09	1.98	1.87	1.76	1.65	1.53	1.42	1.31	1.20	1.09	0.98	18
17	2.70	2.59	2.48	2.37	2.25	2.15	2.03	1.92	1.81	1.70	1.59	1.48	1.37	1.26	1.15	1.04	0.92	17
16	2.65	2.54	2.42	2.31	2.19	2.09	1.98	1.87	1.76	1.65	1.54	1.43	1.31	1.20	1.09	0.98	0.87	16
15	2.59	2.48	2.37	2.26	2.14	2.04	1.93	1.82	1.70	1.59	1.48	1.37	1.26	1.15	1.04	0.93	0.82	15
14	2.54	2.43	2.32	2.20	2.08	1.98	1.87	1.76	1.65	1.54	1.43	1.32	1.21	1.09	0.98	0.87	0.76	14
13	2.48	2.37	2.26	2.15	2.03	1.93	1.82	1.71	1.60	1.48	1.37	1.26	1.15	1.04	0.93	0.82	0.71	13
12	2.43	2.32	2.21	2.10	1.98	1.87	1.76	1.65	1.54	1.43	1.32	1.21	1.10	0.99	0.87	0.76	0.65	12
11	2.37	2.26	2.15	2.04	1.92	1.82	1.71	1.60	1.49	1.38	1.27	1.15	1.04	0.93	0.82	0.71	0.60	11
10	2.32	2.21	2.10	1.99	1.87	1.77	1.65	1.54	1.43	1.32	1.21	1.10	0.99	0.88	0.77	0.66	0.54	10
9	2.27	2.16	2.04	1.93	1.81	1.71	1.60	1.49	1.38	1.27	1.16	1.04	0.93	0.82	0.71	0.60	0.49	9
8	2.21	2.10	1.99	1.88	1.76	1.66	1.55	1.44	1.32	1.21	1.10	0.99	0.88	0.77	0.66	0.55	0.44	8
7	2.16	2.05	1.93	1.82	1.70	1.60	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.71	0.60	0.49	0.38	7
6	2.10	1.99	1.88	1.77	1.65	1.55	1.44	1.33	1.21	1.10	0.99	0.88	0.77	0.66	0.55	0.44	0.33	6
5	2.05	1.94	1.83	1.72	1.60	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.72	0.61	0.49	0.38	0.27	5
4	1.99	1.88	1.77	1.66	1.54	1.44	1.33	1.22	1.11	1.00	0.88	0.77	0.66	0.55	0.44	0.33	0.22	4
3	1.94	1.83	1.72	1.61	1.49	1.38	1.27	1.16	1.05	0.94	0.83	0.72	0.67	0.50	0.39	0.27	0.16	3
2	1.89	1.77	1.66	1.55	1.43	1.33	1.23	1.11	1.00	0.89	0.78	0.66	0.55	0.44	0.33	0.22	0.11	2
1	1.83	1.72	1.61	1.50	1.38	1.28	1.16	1.05	0.94	0.83	0.72	0.61	0.50	0.39	0.28	0.17	0.05	1

Procedure. Find the student's HSA in one of the columns across the top; then find his ACT Composite in one of the rows down the side. The "derived score" for the student is given in the cell where this row and column intersect. Add the college constant (Table B) to the "derived score" to obtain the predicted GPA at a given college. Refer the result to Table C (expectancy table).

Table A-2

Grade Prediction For Women

High School Average (HSA)

ACT Composite Standard Score	4.00	3.75	3.50	3.25	3.00	2.75	2.50	2.25	2.00	1.75	1.50	1.25	1.00	0.75	0.50	0.25	0.00	
36	4.06	3.94	3.82	3.70	3.58	3.47	3.35	3.23	3.11	2.99	2.87	2.75	2.63	2.52	2.40	2.28	2.16	36
35	4.00	3.88	3.76	3.64	3.52	3.41	3.29	3.17	3.05	2.93	2.81	2.69	2.57	2.46	2.34	2.22	2.10	35
34	3.94	3.82	3.70	3.58	3.46	3.35	3.23	3.11	2.99	2.87	2.75	2.63	2.51	2.40	2.28	2.16	2.04	34
33	3.88	3.76	3.64	3.52	3.40	3.29	3.17	3.05	2.93	2.81	2.69	2.57	2.45	2.34	2.22	2.10	1.98	33
32	3.82	3.70	3.58	3.46	3.34	3.23	3.11	2.99	2.87	2.75	2.63	2.51	2.39	2.28	2.16	2.04	1.92	32
31	3.76	3.64	3.52	3.40	3.28	3.17	3.05	2.93	2.81	2.69	2.57	2.45	2.33	2.22	2.10	1.98	1.86	31
30	3.70	3.58	3.46	3.34	3.22	3.11	2.99	2.87	2.75	2.63	2.51	2.39	2.27	2.16	2.04	1.92	1.80	30
29	3.64	3.52	3.40	3.28	3.16	3.05	2.93	2.81	2.69	2.57	2.45	2.33	2.21	2.10	1.98	1.86	1.74	29
28	3.58	3.46	3.34	3.22	3.10	2.99	2.87	2.75	2.63	2.51	2.39	2.27	2.15	2.04	1.92	1.80	1.68	28
27	3.52	3.40	3.28	3.16	3.04	2.93	2.81	2.69	2.57	2.45	2.33	2.21	2.09	1.98	1.86	1.74	1.62	27
26	3.46	3.34	3.22	3.10	3.00	2.87	2.75	2.63	2.51	2.39	2.27	2.15	2.03	1.92	1.80	1.68	1.56	26
25	3.40	3.28	3.16	3.04	2.92	2.81	2.69	2.57	2.45	2.33	2.21	2.09	1.97	1.86	1.74	1.62	1.50	25
24	3.34	3.22	3.10	2.98	2.86	2.75	2.63	2.51	2.39	2.27	2.15	2.03	1.91	1.80	1.68	1.56	1.44	24
23	3.28	3.16	3.04	2.92	2.80	2.69	2.57	2.45	2.33	2.21	2.09	1.97	1.85	1.74	1.62	1.50	1.38	23
22	3.22	3.10	2.98	2.86	2.74	2.63	2.51	2.39	2.27	2.15	2.03	1.91	1.79	1.68	1.56	1.44	1.32	22
21	3.16	3.04	2.92	2.80	2.68	2.57	2.45	2.33	2.21	2.09	1.97	1.85	1.73	1.62	1.50	1.38	1.26	21
20	3.10	2.98	2.86	2.74	2.62	2.51	2.39	2.27	2.15	2.03	1.91	1.79	1.67	1.56	1.44	1.32	1.20	20
19	3.04	2.92	2.80	2.68	2.56	2.45	2.33	2.21	2.09	1.97	1.85	1.73	1.61	1.50	1.38	1.26	1.14	19
18	2.98	2.86	2.74	2.62	2.50	2.39	2.27	2.15	2.03	1.91	1.79	1.67	1.55	1.44	1.32	1.20	1.08	18
17	2.92	2.80	2.68	2.56	2.44	2.33	2.21	2.09	1.97	1.85	1.73	1.61	1.49	1.38	1.26	1.14	1.02	17
16	2.86	2.74	2.62	2.50	2.38	2.27	2.15	2.03	1.91	1.79	1.67	1.55	1.43	1.32	1.20	1.08	0.96	16
15	2.80	2.68	2.56	2.44	2.32	2.21	2.09	1.97	1.85	1.73	1.61	1.49	1.37	1.26	1.14	1.02	0.90	15
14	2.74	2.62	2.50	2.38	2.26	2.15	2.03	1.91	1.79	1.67	1.55	1.43	1.31	1.20	1.08	0.96	0.84	14
13	2.70	2.56	2.44	2.32	2.20	2.09	1.97	1.85	1.73	1.61	1.49	1.37	1.25	1.14	1.02	0.90	0.78	13
12	2.62	2.50	2.38	2.26	2.14	2.03	1.91	1.79	1.67	1.55	1.43	1.31	1.19	1.08	0.96	0.84	0.72	12
11	2.56	2.44	2.32	2.20	2.08	1.97	1.85	1.73	1.61	1.49	1.37	1.25	1.13	1.02	0.90	0.78	0.66	11
10	2.50	2.38	2.26	2.14	2.02	1.91	1.79	1.67	1.55	1.43	1.31	1.19	1.07	0.96	0.84	0.72	0.60	10
9	2.44	2.32	2.20	2.08	1.96	1.85	1.73	1.61	1.49	1.37	1.25	1.13	1.01	0.90	0.78	0.66	0.54	9
8	2.38	2.26	2.14	2.02	1.90	1.79	1.67	1.55	1.43	1.31	1.19	1.07	0.96	0.84	0.72	0.60	0.48	8
7	2.32	2.20	2.08	1.96	1.84	1.73	1.61	1.49	1.37	1.25	1.13	1.01	0.90	0.78	0.66	0.54	0.42	7
6	2.26	2.14	2.02	1.90	1.78	1.67	1.55	1.43	1.31	1.19	1.07	0.95	0.84	0.72	0.60	0.48	0.36	6
5	2.20	2.08	1.96	1.84	1.72	1.61	1.49	1.37	1.25	1.13	1.01	0.89	0.78	0.66	0.54	0.42	0.30	5
4	2.14	2.02	1.90	1.78	1.66	1.55	1.43	1.31	1.19	1.07	0.95	0.83	0.72	0.60	0.48	0.36	0.24	4
3	2.08	1.96	1.84	1.72	1.60	1.49	1.37	1.25	1.13	1.01	0.89	0.77	0.66	0.54	0.42	0.30	0.18	3
2	2.02	1.90	1.78	1.66	1.55	1.43	1.31	1.19	1.07	0.95	0.83	0.71	0.60	0.48	0.36	0.24	0.12	2
1	1.96	1.84	1.72	1.60	1.48	1.37	1.25	1.13	1.01	0.89	0.77	0.65	0.54	0.42	0.30	0.18	0.06	1

Procedure. Find the student's HSA in one of the columns across the top; then find his ACT Composite in one of the rows down the side. The "derived score" for the student is given in the cell where this row and column intersect. Add the college constant (Table B) to the "derived score" to obtain the predicted GPA at a given college. Refer the result to Table C (expectancy table).

Table B

ACT Composite Means and Regression Constants For

985 Four-Year Colleges Estimated From Astin's Data

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Alabama			
Alabama College	18.9-22.0	-.24	-.28
Athens College	17.7-20.8	-.04	-.07
Auburn Univ	19.3-22.3	-.47	-.51
Birmingham-Southern Coll	20.2-23.2	-.30	-.35
Florence State College	17.2-20.3	-.23	-.25
Samford Univ	18.5-21.6	-.32	-.35
Huntingdon Coll	20.1-23.2	-.29	-.34
Jacksonville State University	17.3-20.4	-.20	-.23
Judson College	15.6-18.7		-.24
Livingston State College	18.9-22.0	-.11	-.14
Oakwood College	13.7-16.8	+.12	+.11
St. Bernard Coll	15.5-16.6	+.14	
Spring Hill Coll	23.2-26.3	-.22	-.29
Stillman College	15.5-18.5	-.05	-.07
Talladega College	15.7-18.8	.00	-.03
Troy State Coll	17.4-20.5	-.17	-.19
Tuskegee Institute	14.8-17.9	+.06	+.05
Univ. of Alabama	20.4-23.5	-.40	-.45
Alaska			
Univ of Alaska	19.4-22.5	-.15	-.20
Arizona			
Northern Arizona University	18.8-21.9	-.20	-.24
Arizona State Univ	19.3-22.4	-.30	-.34
Univ of Arizona	21.5-24.6	-.42	-.47
Arkansas			
Arkansas A. M. & N. College	14.7-17.8	-.10	-.12
Arkansas A & M College	16.7-19.7	-.14	-.16
Arkansas Coll	17.4-20.5	-.03	-.06
Arkansas Polytechnic Coll	19.0-22.1	-.25	-.29
Arkansas State University	16.5-19.6	-.18	-.20
State Coll of Arkansas	16.4-19.5	-.13	-.16
College of the Ozarks	19.6-22.7	-.14	-.18
Harding Coll	18.5-21.6	-.13	-.17
Henderson State College	16.4-19.5	-.09	-.11
Hendrix Coll	22.1-25.1	-.32	-.39
Ouachita Baptist University	18.5-21.6	-.19	-.22
Philander Smith College	13.6-16.7	+.09	+.08
Southern State College	17.0-20.1	-.12	-.14
University of Arkansas	19.7-22.8	-.30	-.34
California			
Art Center School	19.6-22.7	-.34	-.38
Calif Coll of Arts & Crafts	16.6-19.7	-.59	-.62
Calif Institute of Technology	26.9-30.0	-.38	
Calif State Polytechnic College-Kellogg Campus	19.3-22.3	-.43	-.48
Calif Western University	20.4-23.5	-.36	-.40
Chapman Coll	20.3-23.4	-.12	-.17

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Chico State Coll	18.0-21.0	-.27	-.30
Claremont Men's College	22.2-25.3	-.22	
Coll of Notre Dame	19.3-22.4		-.14
Coll of the Holy Names	18.8-22.0		-.20
Dominican Coll of San Rafael	18.2-21.3		-.09
Fresno State Coll	18.2-21.3	-.25	-.28
Golden Gate Coll	16.1-19.2	-.38	-.40
Harvey Mudd Coll	23.4-26.5	-.34	-.41
Humboldt State Coll	18.5-21.6	-.13	-.17
Immaculate Heart College	21.1-25.2		-.31
La Sierra College	19.4-22.4	-.27	-.32
La Verne College	20.3-23.4	-.20	-.25
Calif State Coll at Long Beach	18.3-21.4	-.26	-.29
Loyola Univ of Los Angeles	21.8-24.9	-.15	
Mills College	20.2-23.3		-.33
Mount St. Mary's College	20.2-23.4		-.35
Occidental Coll	23.4-26.5	-.18	-.25
Pacific Union Coll	18.4-21.5	-.21	-.25
Pasadena Coll	19.4-22.5	-.21	-.25
Pepperdine Coll	20.5-23.6	-.19	-.24
Pomona Coll	25.8-28.8	-.30	-.39
Sacramento State College	18.5-21.6	-.19	-.23
Saint John's Coll	20.3-23.4	+.15	
Saint Mary's Coll of California	20.3-23.4	-.05	
Saint Patrick's College	18.6-21.7	+.37	
Univ of San Diego Coll for Women	20.3-23.4		-.19
San Diego State College	19.4-22.5	-.32	-.36
San Fernando Valley State Coll	19.1-22.2	-.21	-.25
San Francisco Art Institute	16.0-19.1	-.21	-.24
San Francisco Coll for Women	21.2-24.3		-.21
San Francisco State College	19.4-22.5	-.30	-.35
San Jose State College	20.5-23.5	-.41	-.46
Scripps Coll	21.7-24.8		-.35
Stanford Univ	24.9-28.0	-.24	-.32
Univ of Calif - Berkeley	23.7-26.8	-.47	-.54
Univ of Calif - Davis	21.6-24.7	-.42	-.48
Univ of Calif- Los Angeles	21.9-25.0	-.39	-.45
Univ of Calif- Riverside	21.8-24.8	-.42	-.48
Univ of Calif - Santa Barbara	21.3-24.4	-.29	-.35
Univ of Redlands	22.6-25.7	-.20	-.26
Univ of San Diego Coll for Men	21.2-24.2	-.14	-.19
Univ of San Francisco	20.6-23.7	-.21	-.26
Univ of Santa Clara	23.2-26.3	-.29	-.36
Univ of Southern California	22.6-25.7	-.25	-.32
Univ of the Pacific	20.5-23.6	-.24	-.30
Westmont Coll	21.0-24.1	-.06	-.12
Whittier Coll	20.8-23.9	-.24	-.29
Colorado			
Adams State College	17.9-21.0	-.08	-.11
Colorado Coll	24.6-27.7	-.23	-.31
Colorado State College	18.7-21.8	-.18	-.22
Colorado State University	21.0-24.1	-.47	-.53
Loretto Heights College	20.8-23.8		-.26
Regis College	19.3-22.3	-.11	
Univ of Colorado	21.3-24.4	-.44	-.50
Univ of Denver	21.1-24.2	-.35	-.41
Western State Coll of Colo.	18.3-21.4	-.14	-.18
Connecticut			
Albertus Magnus College	23.8-26.9		-.32

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Annhurst College	21.7-24.7		-.43
Central Connecticut State Coll	16.0-19.1	-.17	-.19
Connecticut Coll	21.4-24.5		-.40
Danbury State Coll	19.6-22.7	-.15	-.19
Fairfield Univ	20.7-23.8	-.13	
Quinnipiac Coll	17.7-20.8	-.44	-.47
St. Joseph Coll	20.7-23.8	-.12	-.17
Southern Conn State College	18.0-21.1	-.14	-.17
Trinity College	23.5-26.6	-.16	
Univ of Bridgeport	16.5-19.6	-.11	-.13
Univ of Conn	19.5-22.6	-.35	-.39
Wesleyan Univ	24.6-27.7	-.13	
Willimantic State College	16.4-19.5	-.05	-.08
Yale Univ	24.7-27.7	-.26	
Delaware			
Delaware State College	14.3-17.3	-.07	-.06
Univ of Delaware	20.9-24.0	-.23	-.28
District of Columbia			
American Univ	21.2-24.3	-.29	-.34
Catholic Univ of America	23.2-26.3	-.05	-.12
District of Columbia Teachers Coll	13.6-16.7	+.03	+.02
Dunbarton Coll of the Holy Cross	20.0-23.1		-.20
Gallaudet College	17.1-20.2	+.02	.00
Geo Wash Univ	21.2-25.2	-.24	-.30
Georgetown Univ	24.4-27.5	-.13	-.20
Howard University	17.1-20.1	-.09	-.12
Trinity College	25.1-26.1		-.47
Florida			
Barry College	20.0-23.1		-.18
Bethune-Cookman College	13.8-16.9	.00	-.01
Florida A&M Univ	13.8-16.9	-.01	-.02
Florida Memorial College	13.5-16.6	+.10	+.09
Florida Southern College	19.6-22.7	-.31	-.36
Florida State Univ	21.2-24.3	-.39	-.45
Rollins College	20.6-23.7	-.09	-.14
Stetson Univ	21.9-25.0	-.31	-.37
Univ of Florida	21.0-24.1	-.44	-.49
Univ of Miami	21.1-24.2	-.28	-.34
Univ of Tampa	19.1-22.2	-.06	-.10
Georgia			
Agnes Scott College	22.5-25.6		-.53
Albany State College	14.6-17.7	+.01	.00
Berry College	18.0-21.1	-.02	-.05
Brenau College	15.5-18.6		-.20
Clark College	13.8-16.9	-.02	-.03
Emory Univ	22.7-25.8	-.27	-.33
Fort Valley State Coll	13.7-16.8	-.02	-.03
Georgia Institute of Technology	22.4-25.5	-.41	-.48
Georgia Southern College	16.3-19.4	-.14	-.16
Georgia State Coll	18.1-21.2	-.53	-.56
La Grange Coll	17.3-20.4	-.19	-.22
Mercer Univ	20.2-23.3	-.31	-.36
Morehouse Coll	14.4-17.4	-.08	
Morris Brown College	14.6-17.7	-.02	-. 3
North Georgia College	19.5-22.6	-.21	-.26
Oglethorpe Univ	16.8-19.8	+.13	+.10
Paine College	14.4-17.5	-.11	-.13
Savannah State College	14.2-17.3	-.09	-.11
Shorter College	17.6-20.6	-.18	-.21
Spelman College	13.3-16.4		-.13
Tift College	15.9-19.0		-.34
Univ of Georgia	20.2-23.3	-.43	-.48
Valdosta State College	17.6-20.7	-.24	-.27
Wesleyan Coll	18.0-21.1		-.33
Georgia State Coll for Women	16.1-19.1		-.28
Hawaii			
Univ of Hawaii	20.3-23.4	-.35	-.40
Idaho			

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures: ACT-C Mean Interval*	Constant: Men	Constant: Women
Coll of Idaho	21.1-24.2	-.05	-.10
Idaho State Univ	19.0-22.1	-.33	-.37
Northwest Nazarene College	20.1-23.2	-.21	-.26
Univ of Idaho	19.7-22.8	-.34	-.38
Illinois			
Augustana Coll	22.5-25.6	-.32	-.39
Aurora College	18.9-22.0	-.12	-.16
Barat Coll of the Sacred Heart	18.5-21.5		-.15
Blackburn Coll	22.6-26.7	-.23	-.30
Bradley Univ.	19.7-22.7	-.25	-.30
Ill Teachers Coll, Chicago South	15.9-19.0	+.04	+.02
Coll of St. Francis	21.3-24.4		-.30
Concordia Teachers College	20.8-23.9	-.17	-.23
De Paul Univ	20.3-23.4	-.28	-.32
Eastern Ill Univ	17.4-20.5	-.23	-.26
Elmhurst Coll	19.8-22.9	-.18	-.23
Geo Williams College	14.6-17.7	+.11	+.10
Greenville Coll	19.4-22.5	-.15	-.20
Illinois College	21.2-24.3	-.24	-.30
Ill Institute of Technology	23.8-26.9	-.39	-.47
Ill State Univ	18.9-22.0	-.27	-.31
Ill Wesleyan University	21.1-24.2	-.26	-.32
Knox College	24.8-28.0	-.30	-.38
Lake Forest College	22.2-25.3	-.35	-.41
Loyola Univ	22.1-25.2	-.22	-.28
MacMurray Coll	19.7-22.8	-.19	-.24
Maryknoll Seminary	18.6-21.7	+.19	
Millikin Univ	20.7-23.8	-.26	-.31
Monmouth Coll	21.3-24.4	-.34	-.39
Mundelein Coll	22.3-25.4		-.41
Nat Coll of Education	16.6-19.7	+.05	+.03
North Central College	18.5-21.6	-.21	-.27
Northern Ill University	18.4-21.5	-.26	-.30
Northwestern University	22.7-25.8	-.27	-.34
Olivet Nazarene College	19.3-22.4	-.15	-.19
Principia Coll	21.0-24.1	-.22	-.28
Quincy College	21.6-24.7	-.06	-.12
Rockford Coll	21.2-24.3	-.03	-.09
Roosevelt Univ	21.2-24.3	-.20	-.25
Rosary Coll	21.9-25.0		-.38
St. Procopius College	20.5-23.6	-.17	-.22
St. Xavier College	21.5-24.6		-.32
Shimer Coll	21.5-24.6	-.23	-.29
Southern Ill Univ-Carbondale Campus	17.6-20.7	-.29	-.32
Univ of Chicago	24.0-27.1	-.25	-.33
Univ of Ill-Urbana Campus	21.3-24.4	-.51	-.57
Western Ill University	16.9-20.0	-.08	-.11
Wheaton Coll	24.1-27.2	-.18	-.26
Indiana			
Anderson Coll	18.8-21.8	-.14	-.18
Ball State Univ	17.7-20.8	-.24	-.27
Butler Univ	20.7-23.8	-.28	-.33
DePauw Univ	22.4-25.5	-.31	-.38
Earlham Coll	23.4-26.5	-.26	-.33
Univ of Evansville	18.6-21.7	-.29	-.32
Franklin Coll of Indiana	18.7-21.8	-.07	-.11
Goshen Coll	20.1-23.2	-.22	-.27
Hanover Coll	22.3-25.4	-.28	-.34
Indiana Central College	18.3-21.4	-.11	-.15
Ind. State Univ	17.9-21.0	-.19	-.23
Ind University	19.9-22.9	-.39	-.43
Manchester College	19.9-23.0	-.22	-.28
Marian Coll	17.4-20.5	-.01	-.04
Purdue Univ	21.8-24.8	-.45	-.51
Rose Polytechnic Institute	20.6-23.7	-.33	
St. Francis Coll	20.6-23.7	-.02	-.07

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
St. Joseph Coll	18.7-21.8	-.24	-.28
St. Mary-of-the Woods College	21.5-24.6		-.29
St. Mary's Coll	22.6-25.7		-.33
Taylor Univ	21.0-24.1	-.07	-.13
Univ of Notre Dame	21.0-24.1	-.26	
Valparaiso Univ	22.2-25.3	-.37	-.43
Wabash College	23.7-26.8	-.20	
Iowa			
Briar Cliff Coll	19.1-22.2		-.12
Buena Vista Coll	18.0-21.1	-.08	-.11
Central College	18.5-21.6	-.19	-.24
Clarke College	20.6-23.7		-.31
Coe College	19.8-22.9	-.19	-.24
Cornell College	21.7-24.8	-.24	-.30
Drake Univ	20.0-23.1	-.30	-.35
Grinnell College	25.0-28.1	-.21	-.29
Univ of Northern Iowa	20.3-23.4	-.25	-.28
Iowa State Univ	21.9-25.0	-.43	-.49
Iowa Wesleyan College	16.9-20.0	-.09	-.12
Loras College	18.7-21.8	-.09	
Luther College	21.0-24.1	-.24	-.30
Marycrest Coll	19.8-22.9	-.17	-.22
Morningside Coll	20.5-23.6	-.24	-.29
Parsons College	16.4-19.5	-.14	-.16
St. Ambrose Coll	18.3-21.4	-.05	
Simpson College	20.1-23.2	-.18	-.22
Univ of Iowa	22.3-25.4	-.40	-.46
Univ of Dubuque	20.8-23.9	-.20	-.25
Upper Iowa Univ	17.3-20.4	+.06	+.03
Wartburg Coll	19.4-22.5	-.22	-.26
Westmar College	18.8-21.9	-.10	-.14
Kansas			
Baker Univ	19.5-22.6	-.16	-.21
Bethany College	19.3-22.4	-.08	-.12
Bethel College	18.6-21.7	-.07	-.11
Coll of Emporia	16.4-19.5	-.08	-.11
Fort Hays State College	16.2-19.3	-.17	-.19
Friends Univ	16.2-19.3	+.01	-.01
Kansas State Coll of Pittsburg	17.1-20.2	-.14	-.17
Kansas State Teachers Coll	18.0-21.0	-.21	-.25
Kansas State Univ	19.6-22.7	-.35	-.40
Kansas Wesleyan University	17.0-20.1	-.06	-.09
McPherson Coll	17.3-20.4	+.03	.00
Marymount Coll	17.6-20.7		-.07
Mount St. Scholastica College	18.6-21.6		-.15
OttawaUniversity	20.8-23.9	-.21	-.26
St. Benedict's College	19.9-23.0	-.12	
Saint Mary Coll	18.1-21.3		-.09
Southwestern Coll	20.4-23.4	-.15	-.20
Sterling College	19.2-22.2	-.08	-.12
Univ of Kansas	22.1-25.2	-.37	-.43
Washburn Univ	18.5-21.6	-.22	-.25
Wichita State Univ	20.4-23.5	-.27	-.32
Kentucky			
Ashbury College	18.9-22.0	-.06	-.10
Bellarmine Coll	20.0-23.0	-.35	-.39
Berea College	18.7-21.8	-.07	-.11
Brescia College	19.5-22.6	-.07	-.11
Catherine Spalding College	20.5-23.6		-.16
Centre College	22.4-25.4	-.24	-.30
Eastern Kentucky State University	16.6-19.7	-.14	-.17
Georgetown Coll	20.9-24.0	-.29	-.35
Kentucky State College	14.1-17.2	+.10	+.09
Kentucky Wesleyan College	18.7-21.7	-.09	-.13
Morehead State University	16.3-19.4	-.11	-.13
Murray State Univ	16.1-19.2	-.14	-.16
Transylvania Coll	20.1-23.1	-.18	-.22
Union College	16.8-19.9	-.06	-.08
Univ of Kentucky	20.1-23.2	-.35	-.40
Univ of Louisville	21.0-24.1	-.37	-.43
Ursuline College	19.7-22.8		-.19
Villa Madonna College	20.9-24.0	-.16	-.21

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures: ACT-C Mean Interval*	Constant: Men	Constant: Women
Western Kentucky University	15.2-18.3	-.02	-.04
Louisiana			
Centenary Coll of Louisiana	19.1-22.2	-.23	-.28
Dillard University	13.8-16.9	-.02	-.04
Grambling Coll	13.8-16.9	-.03	-.03
Louisiana Coll	16.9-20.0	-.14	-.17
Louisiana Polytechnic Institute	19.0-22.1	-.38	-.44
Louisiana State University	19.9-22.9	-.40	-.45
Loyola Univ	22.5-25.6	-.23	-.29
McNeese State College	16.7-19.8	-.23	-.26
Northeast Louisiana State Coll	17.0-20.1	-.34	-.37
Northwestern State Coll of Louisiana	16.1-19.2	-.18	-.20
St. Mary's Dominican College	17.3-20.4		-.13
Southeastern Louisiana Coll	16.5-19.5	-.20	-.23
Southern University	13.5-16.6	-.10	-.11
Tulane Univ of Louisiana	22.4-25.5	-.24	-.30
Univ of Southwestern La.	18.7-21.8	-.32	-.36
Xavier Univ	16.3-19.4	+.07	+.05
Maine			
Bates College	25.2-28.3	-.21	-.29
Bowdoin Coll	24.1-27.2	-.17	
Colby College	23.2-26.3	-.23	-.30
Farmington State Teachers Coll	16.7-19.8	-.08	-.10
Univ of Maine	19.6-22.7	-.29	-.34
Maryland			
Coll of Notre Dame of Maryland	22.9-26.0		-.39
Columbia Union College	16.8-19.9	-.12	-.14
Frostburg State College	18.3-21.4	-.16	-.19
Goucher College	23.0-26.1		-.41
Hood College	21.5-24.6		-.50
Johns Hopkins University	23.1-26.2	-.30	-.37
Loyola College	20.1-23.2	-.19	-.24
Morgan State College	15.6-18.7	-.17	-.19
Mount St. Agnes College	21.4-24.5		-.19
Mount St. Mary's College	17.8-20.9	-.01	
St. Joseph Coll	22.9-26.0		-.34
St. Mary's Seminary and Univ	16.0-19.1	+.35	
Salisbury State College	16.8-19.9	-.09	-.12
Towson State Coll	19.4-22.5	-.22	-.26
Univ of Maryland	20.3-23.4	-.39	-.44
Washington Coll	22.4-25.5	-.15	-.21
Western Maryland Coll	22.1-25.2	-.31	-.37
Massachusetts			
American International College	16.0-19.0	-.10	-.12
Amherst College	25.9-29.0	-.19	
Anna Maria Coll for Women	18.0-21.0		-.13
Assumption Coll	19.0-22.1	+.10	+.06
Atlantic Union College	17.5-20.6	-.15	-.17
Babson Institute	15.8-18.9	-.31	
Boston College	21.1-24.2	-.26	-.31
Boston Univ	20.8-23.9	-.25	-.30
Brandeis Univ	25.6-28.7	-.23	-.31
Clark Univ	23.8-26.9	-.24	-.32
Coll of Our Lady of the Elms	17.8-20.8		-.19
Coll of the Holy Cross	22.9-26.0	-.18	
Eastern Nazarene College	16.7-19.8	-.15	-.18
Emerson Coll	16.9-20.0	-.13	-.16
Emmanuel Coll	22.4-25.5		-.44

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Harvard University	26.0-29.0	-.26	
Hebrew Teachers College	17.3-20.4	+.18	+.16
Lesley College	15.1-18.2		-.03
Lowell Technical Institute	21.2-24.3	-.42	-.48
Mass Institute of Technology	26.7-29.7	-.42	-.51
Merrimack Coll	20.0-23.1	-.26	-.31
Mount Holyoke Coll	23.7-26.9		-.52
New England Conservatory of Music	17.9-20.9	+.07	+.04
Newton Coll of the Sacred Heart	22.7-25.8		-.26
Northeastern Univ	20.0-23.1	-.35	-.40
Radcliffe College	25.4-28.5		-.46
Regis College	23.7-26.8		-.42
Simmons College	22.8-25.9		-.38
Smith College	22.2 -25.3		-.47
Springfield Coll	17.7-20.8	-.06	-.10
State Coll at Bridgewater	18.1-21.2	-.21	-.25
State Coll at Fitchburg	17.7-20.8	-.08	-.11
State Coll at Framingham	17.8-20.9	-.33	-.37
State Coll at Lowell	16.2-19.3	-.07	-.09
State Coll at North Adams	18.7-21.9	-.07	-.11
State Coll at Salem	16.2-19.3	-.10	-.12
St. Coll at Westfield	19.2-22.3	-.15	-.19
St. Coll at Worcester	16.1-19.2	-.16	-.17
Stonehill College	20.4-23.5	-.13	-.17
Suffolk Univ	15.8-18.9	-.23	-.25
Tufts Univ	23.7-26.8	-.23	-.30
Univ of Mass	21.6-24.7	-.38	-.44
Wellesley Coll	22.6-25.7		-.43
Wheaton Coll	21.5-24.5		-.42
Wheelock Coll	15.4-18.4		-.07
Williams Coll	25.2-28.3	-.17	
Worcester Polytechnic Institute	23.9-27.0	-.39	
Michigan			
Adrian College	16.7-19.8	-.17	-.20
Albion College	27.2-30.3	-.38	-.48
Alma College	21.7-24.8	-.29	-.35
Aquinas Coll	22.6-25.7	-.16	-.22
Calvin College	19.9-23.0	-.26	-.31
Central Michigan Univ	19.3-22.4	-.29	-.33
Eastern Mich Univ	18.1-21.2	-.24	-.28
Ferris State College	19.1-22.2	-.70	-.74
Hillsdale College	20.6-23.7	-.21	-.25
Hope College	22.1-25.2	-.34	-.41
Kalamazoo Coll	23.4-26.5	-.42	-.49
Marygrove Coll	21.0-24.1		-.34
Mercy College	21.2-24.3	-.21	-.26
Mich State Univ	21.4-24.5	-.46	-.52
Mich Technological University	22.3-25.3	-.40	-.47
Nazareth Coll	18.5-21.6		-.18
Northern Mich University	18.7-21.8	-.16	-.19
Siena Heights College	19.2-22.3		-.21
Univ of Detroit	22.1-25.2	-.37	-.43
Univ of Mich	22.8-25.9	-.40	-.47
Wayne State Univ	20.3-23.4	-.31	-.37
Western Mich University	20.0-23.1	-.34	-.39
Minnesota			
Augsburg Coll	21.4-24.5	-.31	-.37
Bemidji State Coll	17.7-20.8	-.12	-.15
Bethel College	20.7-23.8	-.20	-.25
Carleton Coll	24.5-27.6	-.33	-.41
Coll of St. Benedict	17.6-20.7		-.13
Coll of St. Catherine	21.2-24.3		-.31
Coll of St. Scholastica	21.1-24.3		-.21
Coll of St. Theresa	21.3-24.4		-.28
Coll of St. Thomas	19.7-22.8	-.25	
Concordia College	20.9-24.0	-.26	-.32

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Gustavus Adolphus College	21.9-25.0	-.33	-.39
Hamline University	21.6-24.7	-.26	-.32
Macalester College	21.9-25.0	-.32	-.39
Mankato State Coll	19.1-22.2	-.26	-.30
Moorhead State Coll	18.8-21.9	-.16	-.20
St. Cloud State Coll	18.9-22.0	-.21	-.25
St. John's Univ	21.0-24.1	-.09	
St. Mary's College	20.0-23.1	-.15	
St. Olaf College	22.2-25.3	-.30	-.36
Univ of Minn	21.2-24.3	-.43	-.49
Winona State College	17.7-20.8	-.11	-.14
Mississippi			
Alcorn A & M Coll	13.7-16.8	+.02	+.01
Belhaven College	20.3-23.3	-.15	-.20
Blue Mountain Coll	18.5-21.6		-.37
Delta State Univ	18.8-21.8	-.25	-.28
Jackson State Coll	13.5-16.6	+.02	+.02
Millsaps College	21.2-24.3	-.33	-.38
Mississippi Coll	20.1-23.2	-.27	-.32
Univ of Southern Mississippi	18.7-21.7	-.26	-.29
Miss State Coll for Women	18.0-21.0		-.44
Miss State Univ	19.0-22.1	-.34	-.38
Tougaloo College	15.2-18.3	-.05	-.07
Univ of Miss	20.6-23.6	-.40	-.45
William Carey College	19.1-22.2	-.13	-.17
Missouri			
Central Methodist College	20.9-24.0	-.25	-.31
Central Missouri State College	16.1-19.1	-.18	-.20
Culver-Stockton College	20.5-23.6	-.12	-.17
Drury College	19.9-22.9	-.21	-.26
Fontbonne College	18.6-21.7		-.16
Harris Teachers College	16.0-19.1	-.09	-.11
Lincoln Univ	13.5-16.6	-.04	-.03
Lindenwood Coll for Women	18.8-21.9		-.39
Maryville Coll of the Sacred Heart	20.4-23.5		-.15
Missouri Valley College	17.2-20.3	-.08	-.11
Northeast Missouri State Teachers College	15.7-18.8	+.07	+.05
Northwest Mo State College	17.9-21.0	-.13	-.16
Park College	17.5-20.6	-.13	-.17
Rockhurst Coll	20.2-23.3	-.20	-.25
St. Louis Univ	22.7-25.7	-.28	-.35
Southeast Mo State College	16.3-19.4	-.12	-.15
Southwest Mo State Coll	16.3-19.4	-.13	-.15
Tarkio College	18.8-21.9	-.05	-.09
Univ of Mo at Kansas City	20.3-23.4	-.13	-.18
Univ of Mo at Columbia	20.8-24.0	-.46	-.51
Washington Univ	23.0-26.1	-.26	-.33
Webster Coll	19.4-22.5	-.15	-.19
Westminster Coll	19.8-22.9	-.24	-.29
Wm Jewell Coll	19.0-22.1	-.11	-.16
Montana			
Carroll College	20.4-23.5	-.04	-.09
Coll of Great Falls	18.3-21.4	-.07	-.05
Eastern Montana College	18.6-21.7	-.20	-.23
Montana Coll of Mineral Science and Technology	17.4-20.5	-.25	-.28
Montana State University	20.3-23.4	-.31	-.36
Northern Montana College	18.2-21.3	-.13	-.17
Rocky Mountain College	20.0-23.1	-.12	-.17
Western Montana College	15.4-18.5	+.01	.00
Nebraska			

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
College of St. Mary	19.6-22.7		-.17
Concordia Teachers College	19.9-23.0	-.19	-.24
Creighton Univ	23.1-26.2	-.32	-.39
Dana College	18.9-22.0	-.10	-.14
Doane College	22.5-25.6	-.16	-.23
Duchesne Coll	21.7-24.8		-.19
Hastings College	19.8-22.9	-.22	-.27
Midland College	20.1-23.2	-.24	-.29
Municipal Univ of Omaha	17.9-21.0	-.26	-.29
Chadron State College	17.3-20.4	-.06	-.09
Kearney State Coll	18.2-21.3	-.12	-.15
Peru State College	16.8-19.9	+.05	+.02
Wayne State Coll	18.5-21.5	-.12	-.15
Nebraska Wesleyan University	20.8-23.9	-.23	-.28
Union College	17.0-20.1	-.16	-.19
Univ of Nebraska	21.1-24.2	-.35	-.40
Nevada			
Univ of Nevada	18.3-21.4	-.25	-.29
New Hampshire			
Dartmouth Coll	24.2-27.3	-.22	
Keene State Coll	16.8-19.9	-.20	-.23
Mount St. Mary College	21.3-24.4		-.24
Plymouth State Coll	18.6-21.7	-.16	-.20
Rivier College	17.9-21.0		-.07
St. Anselm's Coll	19.6-22.7	-.10	-.15
Univ of New Hampshire	21.4-24.5	-.40	-.46
New Jersey			
Caldwell Coll for Women	19.3-22.4		-.27
Coll of St. Elizabeth	21.0-24.1		-.28
Drew University	20.5-23.6	+.03	-.02
Fairleigh Dickinson University	17.5-20.6	-.31	-.34
Georgian Court Coll	21.4-24.6		-.28
Glassboro State Coll	16.6-19.7	-.25	-.28
Jersey City State College	16.4-19.5	-.23	-.26
Monmouth College	18.2-21.3	-.18	-.21
Montclair State College	18.5-21.6	-.13	-.17
Newark Coll of Engineering	21.9-25.0	-.41	-.47
Paterson State College	18.4-21.5	-.30	-.34
Princeton Univ	25.1-28.2	-.25	
Rider Coll	17.9-21.0	-.41	-.44
Rutgers, The State Univ-Queen's Campus	20.7-23.8	-.39	-.45
St. Peter's Coll	19.4-22.5	-.39	-.44
Seton Hall Univ	19.8-22.9	-.32	-.36
Stevens Institute of Technology	24.5-27.6	-.34	
Trenton State College	18.1-21.2	-.22	-.25
Upsala College	19.7-22.8	-.39	-.44
New Mexico			
Eastern N. M. University	19.4-22.5	-.21	-.25
New Mexico Highlands Univ	15.9-19.0	+.02	.00
N. M. Institute of Mining and Technology	19.5-22.5	-.34	-.38
N. M. State Univ	20.4-23.5	-.37	-.42
Western N.M. University	16.1-19.2	.00	-.02
Univ of N. M.	21.1-24.1	-.35	-.41
New York			
Adelphi College	19.9-23.0	-.13	-.18
Alfred Univ	22.2-25.3	-.22	-.28
Bard College	20.6-23.7	-.08	-.13
Brooklyn College City Univ of N Y	21.3-24.4	-.37	-.44
Canisius College	20.5-23.6	-.17	-.22
City Coll-City Univ of N. Y.	21.0-24.1	-.41	-.47
Clarkson Coll of Technology	23.2-26.3	-.35	-.42
Colgate Univ	23.7-26.7	-.20	
Coll of Mount St. Vincent	24.0-27.1		-.44

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Coll of New Rochelle	22.9-26.0		-.48
Coll of St. Rose	19.8-22.9		-.17
Columbia Univ	21.4-24.5	-.26	-.32
Cooper Union	24.5-27.6	-.36	-.44
Cornell Univ	24.1-27.2	-.29	-.37
D'Youville Coll	20.9-24.0		-.23
Elmira College	20.3-23.4	-.21	-.27
Finch College	14.8-17.8		-.11
Fordham Univ	20.8-23.9	-.28	-.33
Good Counsel Coll	21.1-24.2		-.38
Hamilton College	23.4-26.5	-.10	
Hartwick College	21.2-24.3	-.26	-.31
Hobart & Wm. Smith Colleges	22.8-25.9	-.28	-.34
Hofstra Univ	20.0-23.1	-.16	-.21
Houghton Coll	22.1-25.2	-.26	-.32
Hunter Coll-City Univ of New York	20.3-23.4	-.40	-.46
Iona College	20.1-22.2	-.23	
Ithaca College	19.2-22.2	-.11	-.15
Keuka College	21.6-24.7		-.41
Le Moyne Coll	22.9-26.0	-.20	-.26
Long Island Univ	16.5-19.6	-.29	-.31
Manhattan Coll	22.4-25.5	-.30	
Manhattanville Coll of the Sacred Heart	23.5-26.6		-.38
Marymount College	22.6-25.7		-.35
Mills Coll of Education	15.9-19.0		-.03
Mount St. Joseph Teachers Coll	14.8-17.9		+.23
Nazareth Coll of Rochester	16.5-19.6		-.11
New York Univ	21.1-24.2	-.27	-.32
Niagara Univ	20.0-23.1	-.16	-.21
Notre Dame Coll of Staten Island	21.6-24.7		-.24
Pace College	18.4-21.5	-.59	-.62
Polytechnic Institute of Brooklyn	24.5-27.6	-.40	
Pratt Institute	20.0-23.1	-.36	-.41
Queens Coll-City Univ of New York	21.2-24.3	-.34	-.40
Rensselaer Polytechnic Institute	25.2-28.3	-.35	-.44
Rochester Institute of Technology	17.8-20.9	-.24	-.28
Rosary Hill College	22.2-25.3		-.35
Russell Sage Coll	19.8-22.9	-.17	-.22
St. Bernadine of Siena College	17.9-21.0	-.22	
St. Bonaventure Univ	21.1-24.2	-.19	-.24
St. Francis Coll	18.3-21.4	-.17	
St. John Fisher College	20.1-23.2	-.30	
St. John's Univ	19.3-22.4	-.29	-.33
St. Joseph's Coll for Women	20.4-23.5		-.25
St. Lawrence Univ	23.0-26.1	-.19	-.25
Skidmore Coll	20.0-23.1		-.35
State Univ of New York-Coll at Albany	20.7-23.8	-.32	-.37
State Univ of New York-Coll at Brockport	17.5-20.6	-.10	-.13
State Univ of N Y Coll at Buffalo	18.4-21.4	-.23	-.26
State Univ of N Y Coll at Cortland	16.2-19.3	-.22	-.26
State Univ of N Y Coll at Fredonia	18.1-21.2	-.16	-.19
State Univ of N Y Coll at Geneseo	19.1-22.2	-.27	-.32
State Univ of New York-Coll at New Paltz	17.3-20.4	-.10	-.13
State Univ of N Y Coll at Oneonta	18.3-21.4	-.24	-.27
State Univ of N Y Coll at Oswego	19.0-22.1	-.24	-.28
State Univ of N Y Coll at Plattsburgh	18.8-21.9	-.23	-.27
State Univ of N Y Coll at Potsdam	16.6-19.7	-.05	-.08
Syracuse Univ	21.6-24.7	-.32	-.38
State Univ of N Y at Buffalo	22.2-25.3	-.26	-.33

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Univ of Rochester	23.8-26.9	-.23	-.30
Vassar College	22.9-25.9		-.47
Wagner College	21.0-24.1	-.29	-.34
Wells College	22.2-25.3		-.33
Yeshiva Univ	20.9-24.0	+.02	-.04
North Carolina			
Agricultural and Technical Coll of N C	14.3-17.4	-.02	-.04
Appalachian State Teachers Coll	16.2-19.3	-.16	-.18
Atlantic Christian College	17.3-20.4	-.20	-.23
Belmont Abbey College	18.6-21.8	-.17	
Bennett College	14.0-17.1		-.13
Catawba College	17.1-20.2	-.21	-.23
Davidson College	21.6-24.7	-.21	
Duke University	23.3-26.3	-.24	-.31
East Carolina Coll	15.8-18.9	-.17	-.19
Elizabeth City State College	13.9-17.0	+.05	+.05
Elon College	17.4-20.5	-.21	-.24
Fayetteville State College	13.7-16.8	+.05	+.04
Greensboro Coll	19.3-22.4	-.21	-.25
Guilford College	17.7-20.8	-.22	-.25
High Point College	18.0-21.1	-.03	-.06
Johnson C. Smith University	14.0-17.1	-.01	-.02
Lenoir-Rhyne Coll	20.5-23.6	-.24	-.28
Livingstone Coll	14.4-17.5	+.01	.00
Meredith College	19.9-23.0		-.44
North Carolina Coll at Durham	14.9-18.0	-.20	-.21
N C State Univ at Raleigh	20.3-23.4	-.39	-.44
Pembroke State College	16.5-19.6	-.04	-.06
Pfeiffer College	19.3-22.3	-.22	-.26
Queens College	20.5-23.5		-.48
St. Augustines Coll	15.1-18.2	-.08	-.10
Salem College	20.5-23.5		-.46
Shaw University	13.8-16.9	+.09	+.08
Univ of N C	20.0-23.1	-.29	-.34
Wake Forest Coll	21.9-25.0	-.30	-.36
Western Carolina College	16.8-19.9	-.18	-.20
Winston-Salem Teachers Coll	13.6-16.6	-.02	-.02
North Dakota			
Jamestown Coll	20.7-23.8	-.25	-.30
N. D. State Univ	19.7-22.7	-.38	-.42
Dickinson State College	16.0-19.1	-.07	-.09
Mayville State College	16.2-19.3	-.06	-.09
Minot State Coll	16.4-19.5	-.09	-.12
Valley City State College	16.5-19.6	-.13	-.16
Univ of N. Dakota	18.7-21.8	-.30	-.34
Ohio			
Antioch College	23.5-26.6	-.26	-.34
Ashland College	19.4-22.5	-.18	-.22
Athenaeum of Ohio, The	15.6-18.7	+.36	
Baldwin-Wallace College	21.3-24.4	-.30	-.36
Bluffton College	15.5-18.6	-.02	-.04
Bowling Green State Univ	20.0-23.1	-.35	-.40
Capital Univ	21.5-24.6	-.27	-.33
Case Institute of Technology	24.6-27.6	-.35	-.43
Central State Univ	13.7-16.8	-.06	-.07
Coll of Mount St. Joseph on the Ohio	21.0-24.1		-.27
Coll of St. Mary of the Springs	21.9-25.0	-.17	-.23
Coll of Wooster	23.7-26.8	-.31	-.39
Denison Univ	23.8-26.9	-.35	-.42
Cleveland State Univ	20.6-23.7	-.28	-.34
Heidelberg Coll	20.1-23.2	-.25	-.29
Hiram College	22.9-26.0	-.19	-.26
John Carroll Univ	21.0-24.1	-.20	-.26

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Kent State Univ	19.0-22.1	-.35	-.39
Kenyon College	22.1-25.2	-.16	
Lake Erie College	19.9-23.0	-.17	-.22
Marietta College	20.5-23.6	-.41	-.46
Mary Manse College	17.0-20.1	-.09	-.12
Miami University	20.8-23.9	-.37	-.43
Mount Union College	19.7-22.8	-.24	-.29
Muskingum College	21.4-24.5	-.27	-.33
Notre Dame College	23.0-26.1		-.33
Oberlin College	22.8-25.9	-.19	-.26
Ohio Northern Univ	21.5-24.6	-.22	-.28
Ohio State Univ, The	21.0-24.1	-.44	-.49
Ohio Univ	20.1-23.2	-.38	-.43
Ohio Wesleyan Univ	22.2-25.3	-.35	-.42
Otterbein College	19.5-22.6	-.26	-.31
Our Lady of Cincinnati College	20.9-24.0		-.29
St. John Coll of Cleveland	19.5-22.6		-.13
Univ of Akron, The	18.9-22.0	-.27	-.31
Univ of Cincinnati	20.6-23.7	-.40	-.45
Univ of Dayton	21.6-24.7	-.25	-.31
Univ of Toledo, The	19.2-22.3	-.37	-.41
Ursuline Coll for Women	21.4-24.5		-.26
Western Coll for Women	17.8-20.9		-.19
Western Reserve Coll	23.1-26.2	-.17	-.24
Wilmington College	19.2-22.3	-.13	-.17
Wittenberg Univ	22.5-25.6	-.29	-.35
Xavier Univ	19.9-23.0	-.26	-.30
Youngstown Univ	18.9-22.0	-.15	-.18
Oklahoma			
Bethany Nazarene College	18.0-21.1	-.15	-.19
Central State Coll	16.6-19.7	-.22	-.24
East Central State College	17.1-20.2	-.13	-.16
Langston Univ	14.4-17.5	-.03	-.05
Northeastern State College	16.7-19.8	-.15	-.17
Northwestern State College	18.1-21.2	-.12	-.15
Oklahoma Baptist University	19.3-22.4	-.24	-.28
Oklahoma City University	21.1-24.2	-.44	-.49
Oklahoma Coll of Liberal Arts	14.3-17.4	-.20	-.22
Oklahoma State University	20.2-23.3	-.43	-.48
Panhandle State College	16.3-19.4	-.13	-.15
Phillips Univ	19.5-22.6	-.20	-.24
Southeastern State College	16.4-19.4	-.06	-.08
Southwestern State College	18.2-21.3	-.27	-.30
Univ of Oklahoma	21.0-24.1	-.46	-.52
Univ of Tulsa	19.9-23.0	-.35	-.40
Oregon			
Cascade College	19.2-22.3	-.07	-.11
Eastern Oregon College	17.9-21.0	-.16	-.19
George Fox Coll	18.4-21.5	-.20	-.24
Lewis & Clark College	22.2-25.3	-.30	-.37
Linfield Coll	20.4-23.5	-.23	-.28
Marylhurst Coll	17.6-20.6		-.13
Mount Angel College	18.0-21.1	+.23	+.21
Mount Angel Seminary	19.0-22.1	+.34	
Oregon Coll of Education	19.1-22.2	-.20	-.24
Oregon State U	21.0-24.1	-.48	-.54
Pacific Univ	20.1-23.2	-.22	-.27
Portland State College	19.8-22.9	-.37	-.41
Reed College	24.9-28.0	-.24	-.33
Southern Oregon College	18.4-21.5	-.23	-.27
Univ of Oregon	21.5-24.6	-.33	-.39
Univ of Portland	20.4-23.5	-.10	-.15
Willamette Univ	22.5-25.6	-.27	-.33
Pennsylvania			
Albright College	22.1-25.2	-.33	-.39
Allegheny Coll	23.3-26.4	-.17	-.24
Alliance College	20.8-23.9	-.10	-.16
Beaver College	20.6-23.7		-.46
Bryn Mawr Coll	23.4-26.5		-.41
Bucknell Univ	24.9-28.0	-.32	-.40
Carnegie-Mellon University	23.6-26.7	-.37	-.44

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Cedar Crest College	19.7-22.8		-.38
Chatham College	21.7-24.8		-.35
Chestnut Hill Coll	23.5-26.5		-.41
Coll Misericordia	19.8-22.9		-.25
Dickinson Coll	24.4-27.5	-.30	-.38
Drexel Institute of Technology	22.7-25.8	-.32	-.38
Duquesne Univ	20.8-23.9	-.24	-.29
Eastern Baptist Coll	21.1-24.1	-.16	-.21
Elizabethtown Coll	19.7-22.8	-.28	-.33
Franklin & Marshall College	20.6-23.6	-.27	
Gannon College	18.0-21.1	-.25	-.28
Geneva College	19.5-22.6	-.25	-.29
Gettysburg Coll	22.4-25.5	-.33	-.40
Grove City Coll	21.2-24.3	-.33	-.39
Haverford College	23.6-26.7	-.16	
Immaculata College	22.0-25.1		-.32
Juniata College	21.5-24.6	-.25	-.32
King's College	15.9-19.0	-.09	
Lafayette College	22.3-25.4	-.32	
La Salle College	19.2-22.3	-.34	
Lebanon Valley Coll	20.8-23.9	-.17	-.23
Lehigh Univ	22.8-25.9	-.28	
Lincoln Univ	17.9-21.0	+.05	+.02
Lycoming College	20.3-23.4	-.34	-.39
Maywood College	18.8-21.9		-.21
Mercyhurst Coll	18.0-21.2		-.12
Moore Coll of Art	16.9-20.0		-.43
Moravian College	19.3-22.4	-.23	-.27
Mount Mercy Coll	20.6-23.7		-.26
Muhlenberg College	21.5-24.5	-.27	-.33
Pennsylvania Military College	16.4-19.5	-.14	
Penn State Univ	21.0-24.1	-.43	-.48
Philadelphia Coll of Textiles and Science	17.6-20.7	-.14	-.17
Rosemont College	22.4-25.5		-.31
St. Francis College	20.6-23.7	-.26	-.31
St. Joseph College	21.0-24.1	-.34	-.39
St. Vincent Coll	19.4-22.5	-.07	
Seton Hill Coll	21.7-24.8		-.25
Bloomsburg State College	16.3-19.4	-.18	-.20
California State College	16.4-19.5	-.18	-.20
Cheyney State Coll	13.9-17.0	.04	.03
Clarion State Coll	16.3-19.4	-.28	-.31
East Stroudsburg State Coll	16.5-19.6	-.24	-.27
Edinboro State College	16.6-19.6	-.20	-.22
Ind Univ of Penna School of Education	20.0-23.0	-.29	-.34
Kutztown State Coll	19.1-22.2	-.27	-.31
Lock Haven State College	16.3-19.3	-.17	-.19
Mansfield State Coll	18.2-21.3	-.23	-.26
Millersville State College	18.7-21.8	-.28	-.32
Shippensburg State College	19.8-22.9	-.25	-.30
Slippery Rock State College	18.6-21.7	-.30	-.34
West Chester State College	18.8-21.9	-.27	-.31
Susquehanna Univ	20.7-23.8	-.28	-.33
Swarthmore College	26.2-29.3	-.32	-.42
Temple University	19.6-22.7	-.23	-.28
Thiel College	22.0-25.1	-.25	-.31
Univ of Penna	22.4-25.5	-.27	-.34
Univ of Pittsburgh	22.5-25.6	-.31	-.37
Univ of Scranton	17.3-20.4	-.15	
Ursinus College	23.8-26.9	-.37	-.45
Villa Maria College	18.7-21.8		-.11
Villanova Univ	18.6-21.6	-.28	-.33
Washington & Jefferson College	21.4-24.5	-.20	
Waynesburg Coll	19.2-22.2	-.38	-.43
Westminster Coll	21.0-24.1	-.21	-.27
Wilkes College	19.2-22.3	-.10	-.14
Wilson College	21.7-24.8		-.47
Rhode Island			
Brown Univ	23.1-26.1	-.24	-.31
Providence Coll	21.1-24.2	-.22	
Rhode Island Coll	14.5-17.6	-.01	-.02
Rhode Island School of Design	20.4-23.5	-.35	-.41
Salve Regina Coll	18.2-21.3		-.17
Univ of Rhode Island	20.4-23.4	-.43	-.48

*Predicted mean ± 1 standard error of estimate

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
South Carolina			
Allen Univ	14.3-17.4	+.02	.00
Benedict College	14.3-17.4	-.07	-.08
Citadel-Military Coll of South Carolina	18.7-21.6	-.28	
Clemson Univ	19.2-22.3	-.35	-.39
Coker College	14.6-17.7		-.02
Coll of Charleston	21.0-24.1	-.10	-.15
Columbia College	18.2-21.3		-.40
Converse College	20.1-23.2		-.32
Erskine College	17.2-20.3	-.10	-.12
Furman University	20.9-24.0	-.22	-.28
Lander College	17.3-20.4	-.03	-.07
Limestone Coll	17.4-20.5	-.10	-.13
Newberry College	17.3-20.4	-.16	-.18
Presbyterian Coll	16.3-19.4	-.17	-.19
South Carolina St. College	14.3-17.4	-.05	-.06
Univ of South Carolina	19.7-22.8	-.40	-.45
Winthrop College	17.6-20.6		-.41
Wofford College	19.5-22.6	-.16	
South Dakota			
Augustana Coll	21.6-24.7	-.34	-.40
Black Hills State College	16.8-19.9	-.07	-.09
Dakota Wesleyan University	15.9-19.0	-.03	-.05
Huron College	16.3-19.3	+.04	+.02
Northern State College	18.2-21.3	-.16	-.20
Sioux Falls Coll	18.6-21.7	-.05	-.08
South Dakota School of Mines and Technology	21.6-24.6	-.41	-.48
South Dakota State University	19.4-22.5	-.36	-.41
Univ of S. Dakota	20.6-23.7	-.33	-.39
Yankton College	18.7-21.7	-.18	-.22
Tennessee			
Austin Peay State College	16.7-19.8	-.15	-.17
Belmont College	17.4-20.5	-.07	-.10
Bethel College	18.9-22.0	-.05	-.09
Carson-Newman College	19.6-22.7	-.23	-.27
Christian Bros. College	20.2-23.3	-.23	
David Lipscomb College	20.3-23.4	-.30	-.35
East Tenn State University	16.9-20.0	-.18	-.20
Fisk Univ	18.5-21.6	-.13	-.17
George Peabody College	18.7-21.8	.00	-.04
King College	18.8-21.9	-.10	-.14
Knoxville Coll	14.8-17.9	-.06	-.08
Lambuth Coll	17.6-20.7	-.14	-.17
Lane College	14.9-18.0	+.03	+.01
Lemoyne Coll	14.8-17.9	-.06	-.08
Lincoln-Memorial University	19.1-22.2	+.04	.00
Maryville Coll	20.3-23.4	-.21	-.27
Memphis State University	18.9-22.0	-.25	-.29
Middle Tenn State University	16.5-19.6	-.16	-.18
Scaritt College	16.4-19.5	+.18	+.16
Siena College	17.4-20.5		-.12
Southern Missionary College	18.3-21.4	-.19	-.22
Southwestern at Memphis	22.3-25.4	-.24	-.31
Tenn. State Univ	14.5-17.6	-.07	-.08
Tenn Technological Univ	18.4-21.5	-.31	-.34
Tusculum Coll	17.5-20.5	-.12	-.15
Union University	17.4-20.5	-.11	-.14
Univ of Chattanooga	19.3-22.4	-.13	-.17
Univ of Tenn	19.5-22.6	-.32	-.37
Univ of the South	21.2-24.3	-.19	
Vanderbilt Univ	24.8-27.9	-.30	-.38
Texas			
Abilene Christian College	19.5-22.6	-.30	-.35
Austin College	21.6-24.7	-.25	-.31
Baylor Univ	21.8-24.9	-.36	-.43

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Bishop College	13.4-16.5	+.13	+.12
East Texas Baptist College	17.6-20.7	-.06	-.08
East Texas State University	18.2-21.3	-.17	-.20
Hardin-Simmons University	19.8-22.9	-.25	-.29
Howard Payne Coll	19.2-22.3	-.11	-.15
Huston-Tillotson College	15.0-18.1	-.03	-.05
Incarnate Word Coll	17.1-20.2		-.09
Jarvis Christian College	13.3-16.4	+.12	+.12
Lamar State Coll of Technology	19.1-22.2	-.38	-.42
McMurry College	16.8-19.9	-.14	-.17
Mary Hardin-Baylor College	16.8-19.9	-.16	-.18
Midwestern Univ	16.9-20.0	-.23	-.25
North Texas State U	18.4-21.5	-.31	-.34
Our Lady of the Lake College	16.7-19.8	.00	-.03
Pan American Coll	16.4-19.5	-.14	-.16
Prarie View A & M College	13.3-16.4	-.06	-.06
Rice University	26.9-30.0	-.41	-.51
Sacred Heart Dominican College	20.3-23.4		-.16
St. Edward's Univ	16.7-19.7	-.07	
St. Mary's Univ	18.5-21.5	-.24	-.27
Sam Houston State College	17.1-20.2	-.25	-.28
Southern Methodist University	21.4-24.5	-.35	-.41
Southwest Texas State Coll.	18.6-21.7	-.22	-.25
Southwestern Univ	22.4-25.5	-.22	-.28
Stephen F. Austin State College	18.9-22.0	-.25	-.28
Sul Ross State Coll	16.8-19.8	-.09	-.11
Texas A & M Univ	19.1-22.2	-.34	-.38
Texas Christian U	20.6-23.7	-.33	-.38
Texas College	14.3-17.4	+.07	+.05
Texas Coll of Arts and Industries	18.7-21.8	-.21	-.25
Texas Luteran Coll	19.6-22.7	-.17	-.21
Texas Southern Univ	13.6-16.7	-.06	-.07
Texas Technological College	20.5-23.6	-.47	-.52
Texas Wesleyan College	17.0-20.1	-.02	-.05
Univ of Texas at El Paso	17.0-20.1	-.25	-.28
Texas Woman's University	17.6-20.7		-.42
Trinity University	19.7-22.8	-.16	-.21
Univ of Houston	20.6-23.7	-.46	-.51
Univ of St. Thomas	21.0-24.1	-.08	-.14
Univ of Texas	22.4-25.5	-.50	-.56
Wayland Baptist College	21.9-24.9	-.14	-.18
West Texas State U	16.0-19.1	-.13	-.15
Wiley College	13.2-16.3	+.10	+.10
Utah			
Brigham Young U	19.0-22.1	-.36	-.41
Univ of Utah	19.9-23.0	-.34	-.39
Utah State Univ	17.3-20.3	-.23	-.26
Westminster Coll	17.7-20.8	-.12	-.15
Vermont			
Bennington Coll	21.0-24.0	-.34	-.41
Middlebury Coll	25.1-28.2	-.17	-.25
Norwich Univ	18.6-21.7	-.13	
St. Michael's College	19.4-22.5	-.10	
Trinity Coll	17.3-20.4		-.15
Univ of Vermont & State Agricultural College	21.1-24.2	-.26	-.32
Virginia			
Bridgewater Coll	20.4-23.5	-.18	-.23
Coll of Wm & Mary	22.9-26.0	-.25	-.32
Eastern Mennonite College	19.5-22.6	-.15	-.19
Emory & Henry College	19.7-22.8	-.10	-.15
Hampden-Sydney College	21.8-24.9	-.16	

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Hampton Institute	16.6-19.6	-.05	-.08
Hollins College	21.7-24.8		-.40
Longwood College	19.1-22.2		-.39
Lynchburg College	19.4-22.5	-.21	-.26
Madison College	18.3-21.4	-.36	-.40
Mary Baldwin Coll	21.3-24.4		-.47
Mary Washington Coll of the U of Virginia	21.9-25.0		-.58
Medical Coll of Virginia (School of Nursing)	20.0-23.1		-.78
Randolph-Macon College	17.9-20.9	-.13	
Randolph-Macon Women's Coll	21.5-24.6		-.51
Roanoke College	20.5-23.6	-.16	-.21
St. Paul's Coll	13.9-17.0	-.01	-.02
Sweet Briar Coll	23.4-26.5		-.45
Univ of Richmond	19.6-22.7	-.24	-.28
Univ of Virginia	21.8-25.0	-.27	-.33
Virginia Military Institute	21.3-24.4	-.34	
Virginia Polytechnic Institute	20.0-23.1	-.34	-.39
Virginia State Coll	14.0-17.1	-.08	-.09
Virginia Union Univ	16.6-19.7	-.17	-.20
Washington & Lee University	23.5-26.6	-.14	
Washington			
Central Wash State College	19.5-22.6	-.22	-.26
Eastern Wash State College	18.0-21.1	-.19	-.22
Fort Wright Coll of the Holy Names	19.8-22.9		-.05
Gonzaga University	21.6-24.7	-.08	-.13
Pacific Lutheran University	16.5-19.6	-.17	-.19
St. Martin's Coll	18.4-21.5	.00	-.03
Seattle Pacific Coll	20.3-23.4	-.25	-.30
Seattle Univ	22.3-25.4	-.23	-.29
Univ of Puget Sound	20.8-23.9	-.31	-.36
Univ of Washington	21.6-24.7	-.45	-.51
Walla Walla Coll	18.6-21.7	-.19	-.23
Wash State Univ	21.3-24.4	-.42	-.48
Western Wash State Coll	18.8-21.9	-.22	-.26
Whitman Coll	24.7-22.7	-.21	-.28
Whiteworth Coll	21.1-24.1	-.20	-.26
West Virginia			
Alderson-Broaddus College	17.2-20.3	-.12	-.15
Bethany College	21.3-24.4	-.10	-.16
Bluefield State Coll	13.9-17.0	+.09	+.09
Concord College	16.2-19.3	-.16	-.18
Davis and Elkins College	17.1-20.2	-.17	-.19
Fairmont State College	16.8-19.9	-.21	-.23
Glenville State College	16.3-19.4	-.07	-.09
Marshall Univ	16.2-19.2	-.21	-.23
Morris Harvey College	19.5-22.5	-.11	-.15
Salem College	17.2-20.3	-.07	-.10
Shepherd College	17.0-20.1	-.17	-.20
West Liberty State College	16.8-19.9	-.19	-.21
West Virginia Institute of Technology	18.3-21.4	-.21	-.24
West Virginia State College	14.3-17.3	-.03	-.04
West Virginia U	20.1-23.2	-.38	-.43
Wheeling College	19.2-22.3	-.23	-.27
Wisconsin			
Alverno College	20.7-23.8		-.24
Beloit College	23.7-26.7	-.24	-.31
Cardinal Stritch College	20.4-23.5		-.22
Carroll College	21.7-24.8	-.28	-.35
Carthage College	20.4-23.5	-.17	-.22
Edgewood Coll of the Sacred Heart	20.5-23.4		-.12
Lawrence Univ	22.9-26.0	-.09	-.16
Marquette Univ	23.5-26.6	-.29	-.36
Mount Mary Coll	20.4-23.4		-.23

*Predicted mean ± 1 standard error of estimate.

College Name	Predicted Measures ACT-C Mean Interval*	Constant Men	Constant Women
Northland College	15.0-19.1	-.06	-.08
Ripon College	24.4-27.5	-.24	-.32
St. Norbert College	22.2-25.3	-.23	-.29
Stout State University	18.0-21.1	-.12	-.15
Univ of Wisconsin	21.1-24.2	-.44	-.49
Viterbo College	19.7-22.8		-.06
Wisc State Univ-Eau Claire	18.6-21.7	-.24	-.28
Wisc State Univ-La Crosse	17.9-21.0	-.21	-.25
Wisc State Univ-Oshkosh	19.5-22.6	-.23	-.27
Wisc State Univ-River Falls	17.9-21.0	-.14	-.18
Wisc State Univ-Stevens Point	18.5-21.6	-.18	-.21
Wisc State Univ-Superior	16.7-19.8	-.07	-.09
Wisc State Univ-Whitewater	17.7-20.8	-.29	-.32
Wisc State Univ-Platteville	15.6-18.7	-.09	-.10
Wyoming			
Univ of Wyoming	19.7-22.8	-.30	-.35
Service Academies			
U. S. Air Force Academy	23.0-26.1	-.34	
U. S. Coast Guard Academy	21.6-24.7	-.24	
U. S. Merchant Marine Academy	19.8-22.9	-.31	
U. S. Military Academy	21.8-24.9	-.38	
U. S. Naval Academy	22.5-25.6	-.39	

Table C

Expectancy Table

Estimated Probability That Obtained First Year GPA Will Be

Predicted GPA	Below C (2.00)		2.00 - 2.99		B (3.00) or Above	
	Men	Women	Men	Women	Men	Women
3.6	1	0	16	14	83	86
3.5	1	0	20	19	79	81
3.4	1	1	25	23	74	76
3.3	2	1	30	29	68	70
3.2	3	2	34	34	63	64
3.1	4	3	40	40	56	57
3.0	6	4	44	46	50	50
2.9	8	6	48	51	44	43
2.8	10	8	53	56	37	36
2.7	13	11	61	59	26	30
2.6	17	14	62	62	21	24
2.5	21	19	62	62	17	19
2.4	26	24	61	62	13	14
2.3	32	30	58	59	10	11
2.2	37	36	55	56	8	8
2.1	44	43	50	51	6	6
2.0	50	50	46	46	4	4
1.9	56	57	41	40	3	3
1.8	63	64	35	36	2	2
1.7	68	70	31	29	1	1
1.6	74	76	25	23	1	1
1.5	79	81	20	19	1	0
1.4	83	86	17	14	0	0
1.3	87	89	13	11	0	0
1.2	90	92	10	8	0	0
1.1	92	94	8	6	0	0
1.0	94	96	6	4	0	0
0.9	96	97	4	3	0	0
0.8	97	98	3	2	0	0
0.7	98	99	2	1	0	0
0.6	99	99	1	1	0	0
0.5	99	100	1	0	0	0

Procedure: Use Tables A-1 (Men) or A-2 (Women) and Table B to obtain a predicted GPA. Find the result in the first column of Table C. Read across to determine the estimated probability of obtaining a GPA below a C, between C and B, and B or above.

References

American College Testing Program. Technical report. Iowa City, Iowa: Author, 1965.

Astin, A. W. An empirical characterization of higher educational institutions. Journal of Educational Psychology, 1962, 53, 224-235.

Astin, A. W. Some characteristics of student bodies entering higher educational institutions. Journal of Educational Psychology, 1964a, 55, 267-275.

Astin, A. W. Distributions of students among higher educational institutions. Journal of Educational Psychology, 1964b, 55, 276-287.

Astin, A. W. Who goes where to college? Chicago: Science Research Associates, 1965.

Astin, A. W., & Holland, J. L. The Environmental Assessment Technique: A way to measure college environments. Journal of Educational Psychology, 1961, 52, 308-316.

Bureau of the Census. Current population reports, Series P-25, No. 286. Washington, D.C.: U. S. Government Printing Office, 1964.

Buros, O. K. (Ed.) The sixth mental measurements yearbook. Highland Park, N. J.: The Gryphon Press, 1965.

Cartter, A. M. (Ed.) American universities and colleges. Washington, D.C.: American Council on Education, 1964.

Cass, J., & Birnbaum, M. Comparative guide to American colleges. New York: Harper & Row, 1965.

Chase, C. I., & Barritt, L. S. A table of concordance between ACT and SAT. Journal of College Student Personnel, 1966, 7, 105-108.

College Entrance Examination Board. Manual of freshman class profiles, 1967-69. New York: Author, 1967.

Gleazer, E. M., Jr. (Ed.) American junior colleges. Seventh edition. Washington, D.C.: American Council on Education, 1967.

Goldsen, R. K., Rosenberg, M., Williams, R. M., Jr., & Suchman, E. A., What college students think. Princeton, N.J.: Van Nostrand, 1960.

Hills, J. R., Klock, J. A., & Bush, M. L. Counselor's guide to Georgia colleges. Atlanta: University System of Georgia, 1965.

Holland, J. L. A theory of vocational choice. Journal of Counseling Psychology, 1959, 6, 35-45.

Holland, J. L. The psychology of vocational choice. Waltham, Mass.: Blaisdell, 1966.

Holland, J. L., & Richards, J. M., Jr. Academic and nonacademic accomplishment: Correlated or uncorrelated? Journal of Educational Psychology, 1965, 56, 165-174.

Hoyt, D. P. Three years of research in the American College Testing Program. Paper read at the Iowa Psychological Association annual meeting, Des Moines, Iowa, 1964.

Hoyt, D. P. College grades and adult accomplishment: A review of research. The Educational Record, 1966, 47, 70-75.

Hoyt, D. P. Description and prediction of diversity among four-year colleges. Measurement and Evaluation in Guidance, 1968a, 1, 16-26.

Hoyt, D. P. Description and prediction of diversity among junior colleges. Personnel and Guidance Journal, 1968b, 46, 997-1004.

Hoyt, D. P. Generalized academic prediction in four-year colleges. Personnel and Guidance Journal, 1968c, in press.

Jex, F. B. Predicting academic success beyond high school. Salt Lake City: Office of Institutional Studies, University of Utah, 1966.

Johnson, R. H., Swanson, E. O., Joselyn, E. G. & Berdie, R. F. Minnesota test norms and expectancy tables. St. Paul: Minnesota State Department of Education, 1961 (Revised, 1967).

Lavin, D. E. The prediction of academic performance. New York: Russell Sage Foundation, 1965.

Lunneborg, C. E. A research review of the Washington pre-college testing program. Journal of Educational Measurement, 1966, 3, 157-166.

McConnell, T. R. & Heist, P. The diverse college student population. In Sanford, N. (Ed.) The American College. New York: John Wiley, 1962.

Munday, L. A. Comparative predictive validities of the American College Tests and two other scholastic aptitude tests. ACT Research Reports, No. 6. Iowa City, Iowa: American College Testing Program, 1965.

Office of Education. Digest of educational statistics. OE-10024-65. Washington, D.C.: U. S. Government Printing Office, 1965a.

Office of Education. Projections of educational statistics to 1974-75. OE-10030-65. Washington, D.C.: U. S. Government Printing Office, 1965b.

Office of Education. Opening fall enrollment in higher education. Circular No. 796. Washington, D.C.: U. S. Government Printing Office, 1966.

Richards, J. M., Jr., Holland, J. L., & Lutz, S. The assessment of student accomplishment in college. Journal of College Student Personnel, 1967, 8, 360-365.

Zytowski, D. G. Some notes on the history of vocational counseling. The Vocational Guidance Quarterly, 1967, 16, 53-55.

Appendix

Detailed Procedures for Developing Regression Constants

Notation

Composite is the average of the four ACT standard scores.

HSA is the average of the student's most recent term grades in English, mathematics, social studies, and natural science. Senior year grades are not used. A four-point system is employed (A=4, B=3, C=2, D=1, F=0).

GPA is first year college grade point average. A four-point system is assumed (A=4, B=3, C=2, D=1, F=0).

The X's are standard scores reported for four-year colleges by Astin (1965). X_1 = Intellectualism; X_2 = Estheticism; X_3 = Status; X_4 = Pragmatism; X_5 = Masculinity; X_6 = Selectivity; X_7 = Size; X_8 = Realistic; X_9 = Science; X_{10} = Social; X_{11} = Conventional.

Step 1. Predict the mean ACT Composite score for the college in question by the formula:

$$\text{Predicted ACT-C mean} = -.198380X_1 + .176915X_2 + .151613X_5 + .241432X_6 + .150621X_9 - 5.115500$$

Step 2. Predict the mean HSA for the college in question by the formula:

$$\text{Predicted HSA mean} = .006830X_2 + .009512X_4 - .014413X_5 + .009050X_6 - .009037X_8 + .003937X_9 + .004894X_{11} + 2.197900$$

Step 3. Predict the mean GPA for the college in question by the formula:

$$\text{Predicted GPA mean} = .012854X_2 + .008094X_5 + .011097X_6 - .006939X_7 + .008122X_9 + .016611X_{10} + .005158X_{11} - .515200$$

Step 4. Determine for the college in question the proportion of females among first-time students from Opening fall enrollment in higher education 1965, (U.S. Office of Education, 1966).

Step 5. Compute predicted ACT Composite mean, HSA mean, and GPA mean for each sex by the following equations:

a. Predicted ACT-C mean (males) = Predicted ACT-C mean (Step 1) + .33 times proportion of females.

   Predicted ACT-C mean (females) = Predicted ACT-C (males) -.33.

b. Predicted HSA mean (males) = Predicted HSA mean (Step 2) - .33 times proportion of females.

   Predicted HSA mean (females) = Predicted HSA mean (males) + .33.

c. Predicted GPA mean (males) = Predicted GPA mean (Step 3) - .29 times proportion of females.

   Predicted GPA mean (females) = Predicted GPA mean (males) + .29.

Step 6. Compute regression constants for each sex by the following formulas:

a. Constant (males) = Predicted GPA (males) - .0544 (Predicted ACT-C males) - .4441 (Predicted HSA, males).

b. Constant (females) = Predicted GPA (females) - .0600 (Predicted ACT-C females) - .4748 (Predicted HSA, females).

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